January 2002

Business Assessment Conclusions

GENESIS MANUFACTURING INC.

Asset Recovery Corporation
Computer Recycling and Remarketing

PHOENIX RECYCLING CORPORATION

Hi-Tek RUBBER, INC.

RPI

Pike Companies, Inc.

Minnesota Office of Environmental Assistance

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INTRODUCTION

Volume, value-added, cash and a dash of diversity. Blend effectively with people and processes. This is the recipe for successful recycling companies.

OEA objective for the business assessments: The Minnesota Office of Environmental Assistance (OEA) awarded a grant in 1999, (project ID EB99005) to conduct comprehensive business assessments of six Minnesota recycling companies, providing the companies with an external perspective of business operations and offering recommendations for long-term success. Successful recycling businesses will help Minnesota achieve its goal of resource conservation and landfill abatement through recycling market development. AMPros Corporation was the grant recipient and service delivery resource, and Minnesota Technology, Inc., provided technical support.

What is a business assessment? It is a comprehensive examination of all business aspects as currently implemented and planned with delivery of prioritized recommendations that lead to superior performance and goal achievement. The company confidential assessment report is a 50 to 70 page document that details assessment results and recommendations. Attachment A lists typical subject matter covered in the detail report. A public version was released as an executive summary and is included in this summary report. Some companies use the detail report as an operational guide to track improvement against recommended actions while others use it as the starting point for developing a business or strategic plan. Assessment topics cover financial, operational, marketing and owners' personal goals. Time to conduct and complete an assessment range from a few weeks to several months depending on how quickly the individual company responds to data requests.

METHODOLOGY

How is an assessment performed? Assessment includes acquiring and reviewing existing business plans, strategic documents, marketing materials, financial statements including accountants' notes, policies, procedures, reports, forms used, employee manuals, quality assurance plans and any improvement activity documents. Where possible, data is acquired in electronic form such as database, text or spreadsheet files.

Further augmenting the data gathering process are one-on-one interviews with personnel representing all functions and business processes. This involves 30% to 100% of the employees at each company. Each person is asked two basic questions. What occupies your time on a daily or weekly basis and then instructed to put on the "owners' hat", and asked what would you do to improve business performance, make it a better place to work or otherwise make it more profitability? A surprising number of employees at all levels were attuned to costs and the need for profitable growth. Summarized results of the interviews were given to company management for use in improving management policies and focusing on employee identified issues.

In almost all cases, company goals were revealed only after an extended interview with ownership and executive management.

Financial performance is evaluated for prior three to five years and the trends compared to business long-range goals. A ratio-based forecast projects from current performance, with interim period corrections, to finally arrive at three to five year business growth goals as expressed by the business ownership. Ratios used for the forecast process are consistent with industry standards for manufacturing companies that employ processes similar to the assessed company to the extent possible considering there is no standard financial performance data for the recycling industry. In all cases, the financial projection is designed to move the company into average to superior financial performance. Financial ratios used in the forecast process include asset utilization, profitability, working capital related ratios, solvency and liquidity ratios. Over 60 performance ratios are computed and used as the basis for certain operational recommendations. One performance indicator is the "Z-Score", a commonly used predictor for establishing company viability and ability to survive over the next one to three year period. Z-Score predicted problems with two of the companies that participated in the assessment process.

In addition to financial analysis, operational, marketing and management dimensions are also examined to determine the current performance situation, then compared to where the company ownership desire to take the company over the next three to five years. Comparing and contrasting current to future situation result in prioritized recommendations for actions the company must undertake in order to successfully achieve long-term goals. All data acquired is treated as company confidential and not shared with other companies or third parties.

The assessments are comprehensive yet varied in the level of detail exploration required to reach a valid conclusion about the company current and future situation. In some cases, data is readily available while in others it is necessary to perform detail process and cost analyses. For example, initial data gathering revealed lack of process and product data in some cases and it was necessary to develop process flow charts, assign resource costs and develop overhead cost models to establish realistic product cost and profitability models. These efforts are time consuming but necessary actions that provide the company with a baseline from which to work in formulating corrective actions and management strategies that move the company toward stated goals.

CONCLUSIONS

Six companies volunteered to participate in the business assessment process. All participants expressed gratitude and were very pleased with the knowledge gained, particularly related to prioritized actions that they must undertake to achieve long-term goals. They were very open and cooperative in delivering required data and providing access to employees. There was a genuine desire to benefit from insight gained from the assessment process that help achieve their vision for the company. To the extent possible and within the limitations of available resources, all companies moved forward immediately in addressing the prioritized recommendations. In fact, companies completed some recommended actions while the assessment was still in progress.

Two of the companies were on shaky ground at the time of the assessment and, failing to gain a cash infusion, have since failed. Two companies have solid business models in place and appear to be successfully moving forward toward achieving their long-term goals. Two companies are basically startup businesses that show a great deal of promise but have yet to demonstrate long-term viability.

So ***what is the difference between the companies*** in terms of individual business models and fundamental practices? ***Recycling business models can be expressed in terms of two characteristics, volume and value-added***. There obviously is a volume dimension associated with value-added but it is much smaller than the volume associated with the business model where the product is low value such as flake or pelletized plastic materials. For example, a business model that focuses on material recovery and/or processing has a product value that is measured in cents per pound. Each time a material is handled or sorted or baled or ground or washed adds a few cents cost per pound. When added up, the cost to handle and process recyclable materials result in total cost that is at best only a few cents less per pound than the sale price of the process material. Since there is a certain level of "fixed" cost associated with any business, it is necessary to process high volumes of material to offset the fixed cost then process an additional volume in order to achieve overall profitability. Failure to achieve cost efficient processing simultaneously with high volume output leads to unprofitable operations. In addition, market constraints put a cap on salable material prices, which takes pricing flexibility away from the company that follows the material recovery volume-driven business model. The successful business in this arena must efficiently process 2 million or more pounds per month and deliver a high percentage of processed material as a salable raw material for use in a value-added product.

A ***thorough understanding of cost and cash flow requirements is essential***. For example, it was determined in at least two cases that cost was underestimated and pricing strategies were in place that sold products for less than it cost to produce. Compounding this situation was a continually worsening cash flow situation that eventually resulted in over extension of credit and finally insolvency. Fundamental attention to managing both income statement and balance sheet components was necessary but perhaps not fully understood and probably driven initially by incomplete understanding of the costs incurred to produce and deliver products.

A variant of the volume driven model is one that focuses on higher value recyclable items. Such as, computer electronics and electronic components that have a higher market potential than flakes and pellets derived from plastics. This is the model followed by Asset Recovery Corporation that has proven successful as compared to Phoenix Recycling Corporation which has proven unsuccessful. Both are volume driven, but one has higher inherent product value than the other.

Another factor is product diversity. The model that focuses on one or two product lines is more at risk than one that is offering an array of products in combination with some sort of value-added product or service. This is well reflected in the business philosophy expressed by Asset Recovery Corporation owners, "Ensure company is diversified to weather small market variations and positioned to quickly take advantage of emerging trends and opportunities, as long as they are economically profitable." The philosophy has suited them well over the past decade and is appropriate for any company participating in the recycling industry.

At the value-added end of the spectrum are those companies that use recycled materials as a raw material in the production of an item that has market appeal and a market willing to pay a reasonable price. Four companies had value-added products. One has failed, one is on the road to success and two are in the startup mode. The failed company had a good product but the main customer dictated pricing, which was lower than it cost to produce the product. This was an immediate cash flow problem. Further, company expansion was hindered by insufficient cash flow to allow for hiring necessary personnel required to manage and run multi-shift production operations. Consequently, existing personnel, including the owner, was overextended and unable to fulfill all demands of the business.

The company that is solidly on the success track converts recycled flake and pelletized plastic materials into sheet products and also cuts products from these sheets for use in the marine industry where plywood suffers from environmental degradation. This company fully understands its cost, has put in place effective management and improved process efficiencies. Barring unforeseen economic hazards, this company should continue to be a recycling success story.

The two startup companies have substantially altered perspectives as a result of the assessment. In both cases, the assessment evaluated process capabilities and costs resulting in better

Fiscal Period / Calendar Year	Full Time Equivalent Employees	Total Revenue
2001	103	-
2002	187	$22,561,000
2003	257	$40,767,000
2004	333	$45,524,000

understanding of their potential for financial performance. Pricing scenarios were altered in one case while production volume capability was challenged in the other. Both companies are making progress toward volume production but actual success will be measured by their performance in fiscal period 2002.

One outcome of the assessment process and financial performance forecasting is a prediction of personnel required each year over the forecast period. The following table lists the composite forecast for full time employees (including new jobs) and total revenue projected for the surviving recycling companies. Current national economic conditions may delay timing to achieve results but the companies that follow the assessment recommendations should over the next few years achieve projected performance.

An ***overall conclusion is*** that the cost and effort to conduct a ***comprehensive business assessment yields high returns over a multi-year period*** in terms of sustainable business growth, profit generated and jobs created. It challenges or validates preconceptions about the business plans. It refocuses attention to issues critical to the business long-term success. It provides financial guidelines to achieve superior performance.

A recommended action, independent of the assessed companies, is that a standard set of performance data should be developed for

PARTICIPATING COMPANIES

Who participated in the assessment process? Companies participating in the business assessment process are listed below along with a synopsis of company background. Additional overview information along with goals, conclusions, critical success factors and recommendations are presented in the concluding section of this report.

Asset Recovery Corporation

Founded in 1987, Asset Recovery Corporation is a Minnesota Subchapter “S” corporation located at 150 State Street, St. Paul, MN 55107. The company processes and recovers electronic components and equipment for reuse or resale. They also provide product “End of Life” services for manufacturing companies that are phasing out obsolete product lines. The company services span the Office of Environmental Assistance firm types of broker, material recovery facility and processor.

Genesis Manufacturing, Inc.

Founded in 1997, Genesis Manufacturing is a Minnesota Subchapter “S” corporation located at 700 West 12th Street in St. Charles, MN 55972. Company reclaims and recycles selected plastic materials from the medical industry waste stream for the express purpose of manufacturing value-added products such as cushion tiles and cylinder molds. Services provided span the Office of Environmental Assistance firm types of processor and manufacturer/end user. Note, company filed bankruptcy approximately one year subsequent to completion of assessment.

Hi-Tek Rubber, Inc.

Founded in 1999, Hi-Tek Rubber is a Minnesota “C” corporation located at 28433 Hwy 65 N.E. in Isanti, MN with manufacturing facilities in Ogilvie, MN. The company uses selected plastics and rubber from recycled tires to manufacture simulated slate and cedar shake shingles for the high-end residential and commercial building industry. Hi-Tek Rubber falls under the Office of Environmental Assistance firm type category of manufacturer/end user.

Phoenix Recycling Corporation

Founded in 1989, Phoenix Recycling Corporation is located at 2823 N. Fairview Ave in Roseville, MN. Company focus is on reclaiming and recycling plastic materials from the residential and industrial waste stream for use as a raw material by manufacturing firms. Company services fall within the Office of Environmental Assistance firm types of broker, material recovery facility and processor. Note, company filed bankruptcy approximately one year subsequent to completion of assessment.

Pike Companies (Nylon Board Manufacturing, Inc.)

Incorporated May 9, 2000, Pike Companies is a Minnesota Subchapter "S" corporation located at 7832 21st Avenue NW, Medford, MN 55049. Company officially named Nylon Board Manufacturing, Inc. in September 2001 as a division of Pike Companies, Inc. Focus is transformation of nylon carpet from post consumer and industrial sources into 4ft by 8ft sheet stock for use where plywood suffers from environmental degradation. Company services span the Office of Environmental Assistance firm types of processor and manufacturer/end user.

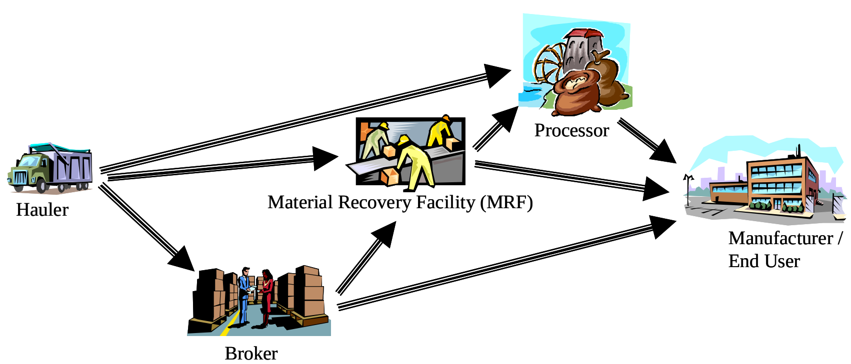
Recycled Plastics, Inc.

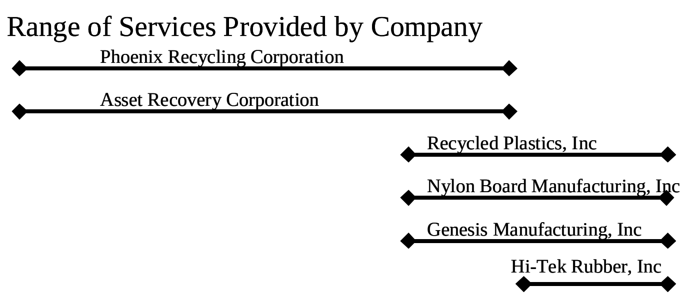
Founded in 1991, Recycled Plastics, Inc. is located at 609 County Road 82 NW in Garfield, MN. Company transforms recycled plastic material into both sheet stock and manufactured parts for use in the marine industry where wood suffers from environmental degradation. Company falls within the Office of Environmental Assistance firm types of processor and manufacturer/end user categories.

FIRM TYPES

(Minnesota Office of Environmental Assistance; Minnesota Recycling Markets Directory, 2000 edition)

Each company is classified by firm type which represents the basic nature of the business processes and products. The firm type definitions are presented as bulleted items below followed by a graphic which illustrates the span of services and processes encompassed by each company in this assessment project. A listing of other recycling companies by firm type is available through Minnesota Office of Environmental Assistance by calling 800-657-3843 or visit their website at www.moea.state.mn.us and look for Minnesota Recycling Markets Directory.





- **Manufacturer / end-user:** a company that uses recyclables as a raw material (feedstock) to make new products.
- **Processor:** a company that prepares recyclable materials for market in a value-added way.

- **Broker:** a company or individual that consolidates and then sells recyclable material to an end-user. A broker may buy or accept materials from a company or individual without necessarily acting as their hauler.
- **Material Recovery Facility (MRF) or Recycling Facility:** a company or county facility that separates and prepares recyclable materials for shipping to a processor or end-user.
- **Hauler:** a company that collects recyclables from residential and/or commercial customers.

PROJECT ECONOMICS

OEA grant was for $50,000 with matching contributions from project participants. The grant was spread evenly over the assessed companies for an average of $8,333 OEA cost contribution per assessment. Each company provided in-kind contribution through labor hours of participating employees or through investments in assets or improvements that resulted from the assessment report. This contribution was at least $82,855 at project conclusion which more than met the grant match requirement. Total actual cost for all assessments exceeded $300,000. Labor effort to conduct all assessment activities resulted in approximately four hours of consulting time for each hour expended by participating company employees.

The timeline and actual cost range for each assessment is summarized in the table below. The "start" time is the date of first visit to the company in preparation for assessment activity. In some cases, the company was unable to proceed with actual data acquisition activity for several weeks or even months after first contact. Assessment duration time was also influenced by the availability of required data which in a few cases took several weeks to compile by company personnel and additional time to consolidate by AMPros Corporation. There is a direct correlation between actual assessment cost and ability of the assessed company to delivery requisite data.

Actual cost is also heavily influenced by the quality of data provided versus what is required to assure that the assessment generates a valid conclusion and recommendation. For example, much more detailed analysis was required for Phoenix Recycling Corporation and Genesis Manufacturing, Inc. to understand cost and profitability than for Asset Recovery Corporation or Recycled Plastics, Inc.

Complex company processes & multiple product lines increase assessment cost while well documented processes and management understanding of detailed cost and profit sources

Company	Start	Report	Cost Range
Genesis Manufacturing	8/10/1999	4/6/2000	$71,000 — $100,000
Phoenix Recycling Corp	8/18/1999	7/17/2000	$71,000 — $100,000
Recycled Plastics Inc	8/2/2000	2/5/2001	$51,000 — $70,000
Pike Companies (Nylon Board Manufacturing, Inc.)	5/15/2001	11/30/2001	$30,000 — $50,000
Hi-Tek Rubber Inc	5/23/2001	7/31/2001	$51,000 — $70,000
Asset Recovery Corp	6/25/2001	8/31/2001	$30,000 — $50,000

Asset Recovery Corporation

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to negative and possibly devastating results.

COMPANY PROFILE AND BACKGROUND

Founded in 1987, Asset Recovery Corporation, is a Minnesota Subchapter “S” corporation located at 150 State Street, St.Paul, MN 55107. The company can be contacted via phone number 651-602-0789, or fax number is 651-602-0202. Asset Recovery also maintains an Internet presence with a web site address of www.assetrecoverycorp.com.

Company genesis was from electronic equipment recycling efforts originally performed internal to Unisys Corporation. Thomas Gujer and Cort Jerome organized the founding of Asset Recovery after Unisys determined that it no longer wished to fund and manage the recycling and reclamation activity within its own company structure. The company grew and expanded to operations in Phoenix, Arizona and Atlanta, Georgia. Managing these remote operations was cost ineffective so the company contracted to a single facility in 1997 while continuing a national electronic equipment recycling service including the St. Paul, Minnesota and surrounding metro area. Other partners were active in the business until 1998, at which time an agreement was made that permitted Tom and Cort to buy the business outright. It was at this time the company organized as a subchapter S Corporation.

The company initially focused on recovering precious metals and bulk commodity materials then evolved to higher value services associated with reselling electronic equipment and components. Further driving the business was the growing awareness and increased government regulation of hazardous waste disposal. This lead to another avenue for revenue generation as a special waste disposal service for consumer electronics, personal computers and monitors. Primary focus has been on serving government, commercial and industrial customers with exploration of residential service. The company maintains a public drop-off service for electronic devices and actively supports community clean-up activities. However, current attitudes and reluctance to pay for recycling electronics by the residential sector does not make this area economically viable as a major business focus at the present time.

Long range goals drive the company toward modest growth supplying a range of products and services including “End of Life” product maintenance services, equipment re-deployment and recycling of used equipment and components. Internet sales and management of company employee sales are other facets of Asset Recovery’s business activity. A market brochure is available from the company that details the range of services provided or the interested

OWNER'S OBJECTIVES

The owner's objectives for the business can be classified under the categories: Business Growth, Market, Operations and occasionally Personal. Goals were derived from the assessment interview process as well as from financial statements, planning documents and other information provided by company management.

Owner Business Philosophy: Ensure company is diversified to weather small market variations and positioned to quickly take advantage of emerging trends and opportunities, as long as they are economically profitable. Continue focus on what's good for business by using common sense consistent with past management practices. Manage business and maintain within single localized physical facility except where business opportunity dictates otherwise.

Operations:

Operations cover all aspects of administration, managing and operating the manufacturing facilities. Goals may also embody sub-goals or require additional definition as indicated by bulleted items within each enumerated goal.

1. **Evaluate** current processes for cost effectiveness. Answer question as to what is being done versus what needs to be done.
    - Improve overall efficiencies in cost.
    - Better understand expenses so that can manage activities & processes to maximize profit.
2. **Define and implement** efficient processes that support business market and growth goals.
    - Need better timing of knowledge to know whether or not a particular Buy/Sell transaction was profitable.
3. **Develop** metrics and measure process outcomes for compliance with expected and desired results.
    - Improve & fine tune processes to a higher productivity level. Achieve consistency in outcome, quality & profitability. Implement means for follow-up to assure processes are working as designed and desired.
4. **Develop** position descriptions to **stabilize** work force and discern skill requirements. **Establish** strategy for full time and/or temporary employee acquisition and skill development.
    - Offload day to day activities to capable management so that owner's can deal more with strategic issues.
    - Resolve full time versus temporary labor usage and expense compared to profitability and productivity benefits.
    - Continue scrap line and low skill jobs as temporary labor. Keep lookout for potential to hire capable full time employees.
    - Empower employees to extent possible. Continue to provide opportunities to challenge employees with fun team building activities. Build inter-departmental communications.
5. **Develop and implement** vehicle for communications that convey individual impact on overall business performance.
6. **Provide** means on Internet for people to shop & buy that reduces support costs while improving shopping convenience.
7. **Analyze and determine** cost and operating impact associated with exceeding government 40 full time employees threshold.

Market:

1. **Explore & develop** business model with target toward growing "End of Life" and equipment re-deployment service along with wholesale market sales.
    - Determine how "End of Life" management should work to deliver maximum customer benefit and yield optimal profit.
    - Push OEM sales.
2. **Focus** on developing high value product or service. **Assign** dedicated resource to figure out how to develop and accomplish goal.
3. **Manage** internal employee sales for companies. **Establish** exclusivity for company, then manage cost to support with Internet order fulfillment.
4. **Explore** strategic partner opportunity for "Residential" recycling services where potential partner has a national presence with logistical infrastructure already in place.
5. **Evaluate** "Residential" recycle position &

Internet sales potential. **Determine** profitability potential for "Residential" and define how to manage. **Continue** residential drop-off and community cleanup services.

Business Growth:

1. **Double** revenue in next 5 years equivalent to approximately 9% to 10% growth per year. Profitability = 10% pretax.
2. **Maintain and improve** product "Pre-sell" philosophy by 5% per year. Avoid "buy to inventory" to greatest extent possible.

Personal:

1. **Develop** owner exit strategy from business with a 5 to 7 year time horizon.
2. **Develop** business to point where someone would buy out company. Solidify retirement.

CONCLUSIONS

1. Asset Recovery is well run delivering economic performance equal to or superior to industry standards for companies employing similar processes.
2. Asset Recovery's business model has demonstrated validity that promises success in the future assuming the company maintains multiple revenue streams from a variety of products and services yet remains flexible to take advantage of new opportunities.
3. The company is committed to relatively conservative growth to the extent that growth is economically viable and profitable. Goals are consistent and appear realistic compared with past practices and performance.

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. Purchasing practices that lower cost of goods sold for purchased equipment and items are essential.
2. Reduce number of times material is handled and moved from time of receipt through shipping.
3. Validate cost benefits of using trailers versus expanded facilities for managing inventory and temporary storage.
4. Revenue streams must favor a mix that delivers a greater sales portion from higher-value products and services.
5. Company must grow revenue at a rate that compensates for inflation, labor and material cost increases in order to achieve historical pre-tax profitability levels.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

The priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in accomplishing the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Company priorities are Operations driven first followed by Market then Business Growth. For the most part, company owners recognize which actions must be addressed as is evident in stated goals. Therefore, many of the recommendations mirror company goals.

<u>Operations:</u>

- ***Improve purchasing practices*** to achieve total materials & purchased items equal ***to 31% or less of revenue.***
- ***Develop high level process flow charts*** of total business then ***identify associated costs*** as means to define and measure improvement opportunities.
- ***Reduce material handling activities*** and evaluate cost benefits of using trailers for temporary storage versus added facility space for managing incoming materials and inventory.
- ***Assess asset requirements*** needed to support revenue growth for each product group**.**
- ***Develop strategy for work force stabilization and productivity improvement*** including position descriptions and accountability definition. Strategy should also address cost/benefit tradeoff analysis for using temporary versus full time employees.

<u>Market:</u>

- ***Generate 25% improvement in higher value product/service sales*** as measured by revenue per pound of material processed or other appropriate metric.
- ***Enforce "pre-sell"*** marketing and business ***philosophy*** and promote rapid turnover of inventoried items.
- Establish process to ***measure profitability of each sales transaction*** in a timely manner that supports decision making on subsequent sales activity.
- Explore and select best means to ***deliver "End of Life" and "Asset Re-deployment" services***.

<u>Business Growth:</u>

- ***Improve revenue by approximately 9.2% per year.***
- ***Improve Cost of Goods sold from 56% to 54%*** where COGS is defined according to the classification included in the detail (company confidential) section of this report.
- Hold total ***expenses to minimal growth not to exceed 3% per year*** in order to achieve pre-tax profit goal.
- ***Develop ownership exit strategy*** consistent with personal and business goals.

Genesis Manufacturing, Inc.

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public company data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following the recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to devastating results.

COMPANY PROFILE AND BACKGROUND

Genesis Manufacturing, Inc. is a Subchapter S company located at 700 West 12th Street in St. Charles, MN, 55972. Jeffery Steiner, along with Cindi Steiner, founded the company in 1997 for the express purpose of reclaiming and recycling plastic materials from the medical industry waste stream. A formal business plan submission to the Small Business Administration in September 1997 along with a request for an equipment loan was approved leading to the purchase of recycling and injection molding equipment. Mr. Steiner has worked extensively with the Minnesota Office of Environmental Assistance, Mayo Clinic, larger plastics manufacturing companies and major waste collections companies to develop both a material source and customer base for value added end products and recycling services provided by Genesis Manufacturing.

The company currently leases 5600 square feet of manufacturing space and 1200 square feet of administrative space. Major equipment includes two 500 ton, one 200 ton and one 75 ton injection molding presses along with recycling equipment such as the 40 Hp granulator, a wash & dry unit and box filler. Genesis Manufacturing provides materials pick up and delivery of finished product within a 300-mile radius around St. Charles, MN. Multi-shift operation is employed to maximize production efficiency and meet customer demands.

Flexible floor tiles and concrete cylinder molds are two products currently produced from recycled plastic materials. Flexible tiles are used as strain relief padding for standing animals as well as for people. The tiles are also found in the entryway of many stores where they serve as a “walk off” area for dirt, snow and sludge. The cylinder molds are used by the construction industry to cast standard size concrete shapes that are subsequently tested for compliance to strength specifications.

Additional products & services are under development that use decontaminated medical wastes as the source material. The resins reclaimed from these waste streams will be used in either existing injection molded products or sold as stock material to other value added manufacturers.

OWNER’S OBJECTIVE

The owner’s objectives for the business can be classified under four categories: Business Growth, Market, Operations, and Personal. Goals were derived from the assessment interview process as well as from financial, planning and other documents created by company management.

Business Growth:

➢ Business growth was expressed as pounds of waste processed rather than revenue and profit. Conversion to equivalent revenue yields target revenue of $1.2 million in 2000 to $2.6 million in 2004.

➢ Forecast and recommended retained profitability grows from a net loss in 1999 to 3.75% in 2000 and 7% in 2004.

Market:

Market focus is on plastic resin reclamation services and replacement of existing products with equivalent items manufactured from materials recycled from the medical waste stream. The target market is represented by 5 sources of revenue:

➢ Flexible Cushion Tiles, wholesale and direct retail sales, are currently the primary revenue source. Sales to support production operation at 3-shifts 5 days per week in 2000, with an additional production day per week in 2001, then maintain through 2004.

➢ Cylinder Molds & lids with custom labeling. Sales growth to sustained 2-shift production in 2000 with 3rd shift added in 2001 and maintained at that level for subsequent years.

➢ Disinfection of medical wastes at 130,000 pounds per month in 2000 with growth to 520,000 pounds per month in 2004.

➢ Resin sales from reclaiming medical wastes equivalent to 50% of poundage processed through disinfection services.

➢ Mail-In-Sharps program begins in 2000 with full capability ramp up over next 5 years. Revenue currently undefined but is expected to exceed mobile disinfection revenue.

Operations:

Operations cover all aspects of administration, managing and operating Genesis Manufacturing facilities.

➢ Expand existing facility space to maximize workflow and injection molding efficiencies while at the same time providing adequate space for receiving, warehousing and processing incoming materials.

➢ Develop new facilities and trucking capacity to support 1 disinfection operation in 2000 with expansion to 7 mobile disinfection units by in 2004. May include separate material receiving, washing and granulating facility that feeds the injection molding operations and sale of reclaimed resin.

➢ Develop staffing to manage and operate multi-shift operations while minimizing overhead costs.

Personal:

Realize business dream while reclaiming some of

CONCLUSIONS

1. Fiscal Year 2000 is a very critical year for Genesis Manufacturing. Significant product diversification and revenue growth to yield positive profitability is essential otherwise it is unlikely the company can survive without substantial cash infusion in the short term. Long term, retained earnings from operations must be approximately 7% to sustain planned growth.
2. Jeff is on the right track for growth and product diversification but is likely to need some assistance in keeping existing production operating at 2 full shifts while developing and implementing new product production capabilities and increased sales volume for current product lines.
3. Genesis Manufacturing has an excellent understanding and assignment of production process costs but is aware that current-pricing practices does not incorporate some factory overhead and no general overhead costs.
4. Sales to Turtle Plastics are and will continue to be a net loss at current pricing levels. Direct sales of Cushion Tiles at proposed prices will contribute to cover overhead costs although there will be ~6.6% net loss overall for flexible tiles. Profitability from this product line could be improved from a combination of price adjustments and three shift production, assuming that supporting sales volume can be achieved.
5. Cylinder Molds can be profitable at current pricing levels but only at a minimum 2 full shift production with corresponding supporting sales volume.
6. Market competition from existing products or suppliers tends to place a ceiling on product

pricing options for equivalent products. Therefore, products manufactured from recycled plastics must offer a performance advantage to justify higher prices or sales and production volume must be sufficiently high in a diversified product mix to offset business overhead costs.

7. Fifty percent of FY 2000 revenue and 70% of FY 2001 revenue needs to come from "New Products" with a high net profit to support both sales and profitability goals as well as help assure long-term business viability.
8. FY 2002 is the projected transition time frame from survival mode to sustainable growth. Consistent profitability and value-added return to investors assume that business growth follows the path outlined in this report.

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. Substantially increase marketing and sales to sustain minimum 2-shifts, 5 days per week production volume for Cushion Tiles and Cylinder Molds is critical. Three shifts operation is even better.
2. High profit margin new products or services must be brought on line during 2000. Minimum sales of $600,000 with 24% retained earnings from new products and services represents 50% of sales and well over 100% of the net profit.
3. Retained profitability of 3.75% for 2000 and 7% in subsequent years is crucial to sustain long-term business growth and viability.
4. Existing facility floor space must be expanded along with increased cooling tower capacity to support continuous multi-shift injection molding operation.
5. Additional facilities and assets must be put in place to support the disinfection and medical waste reclamation business.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

Priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in supporting the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Market:

- The first market actions need to focus on generating much ***higher Cylinder Mold sales*** equivalent to full 2-shift production plus at least ½ shift direct sales for Turtle Tiles.
- ***Greater emphasis on direct sales*** could turn a losing product line into a profitable one. Renegotiate Turtle Plastics pricing to a level consistent with $0.82 unit cost at 2-shift production fully loaded with appropriate factory and general overhead expenses. Pricing should consider that some overhead included in the cost comes from idle injection mold equipment that could be used to generate additional revenue. Wholesale pricing around $0.59 to $0.62 unit price is approximately equal to direct material and process costs of $0.596 each. Direct sales pricing scenarios cover processing costs plus contributes to help cover overhead costs.
- ***Target sales for 2000 at $1.2 million*** with 50% coming from new products and services such as Mobile Disinfection, reclaimed resin sales and Mail-In-Sharps program. Retained profit from

new products and services should be ~24% of sales in order to cover overhead costs and losses from current product lines sales.

- ***Hire or contract with an individual to focus on increasing current product line sales*** to free Jeff's time to develop new product line revenue streams.

Business Growth:

- ***Increase sales*** to $1.2 million in 2000 with goal to achieve $2.6 million in 2004. Pricing and product mix goal should be set at 3.75% retained profit in 2000 and 7% for each subsequent year.
- Improve contribution from 50% of sales generated by new products & services in 2000 to more than 75% in 2004.
- ***Manage gross margin*** to ~32% of sales and reduce general and administration expenses including interest to 28% of sales in 2000 & 2001 with further improvement to 25% for subsequent years.
- Use retained profits to fund assets needed to support revenue growth while solidifying financial strength by ***reducing interest bearing debt*** as a % of capital structure from 189% in 1999 to 33% in 2004.

Operations:

- ***Hire*** an individual that has the skills or potential to serve as ***an operations manager*** that can relieve Jeff of current manufacturing activities. Also plan for development of individuals that can act as ***team leaders*** for 2nd and 3rd shift operations.
- ***Develop a plan for*** production and supervisory ***personnel additions*** required for production as well as marketing and sales. Plan on total headcount over the next 5 years to range between 19 and 32 depending on process improvements and type of assets purchased.
- ***Improve Cushion Tile process costs*** through process improvements in history jacket snap removal.
- ***Manage working capital performance*** improvement from a negative 18% of sales to ~0.2% in 2000 with gradual improvement to ~4% in 2001, >4.5% in 2002, ~7.4% in 2003 and approaching 9% in 2004.
- ***Manage total inventory*** at 30 days of sales or less. Incoming material is a primary factor that drives facility floor space requirements so a minimal amount necessary to support multi-shift injection molding capacity is essential to avoid shut down due to material short fall within floor space limitations.
- ***Maintain*** current practice in ***Accounts Receivable*** at 18 days of sales tied up in receivables.
- ***Improve*** profitability to enable ***Accounts Payable*** improvement from 132 days of cost of sales in 1999 to 35 days in 2000 with further improvement to 30 days in all subsequent years.
- ***Manage cash on hand*** equivalent to approximately 8 days of sales. This is an improvement from negative 11.2 days of sales in 1999.
- ***Add assets to support business growth*** with a targeted level of investment that maintains the depreciated asset ratio at approximately 0.6. This is equivalent to 60% of fixed asset value that is depreciated as a business expense.
- For ***capacity planning***, a general guideline that should be followed is to plan 2nd shift output to be 80% of 1st shift and 3rd shift to be 65% of 1st shift output.

Personal:

- ***Seek out and hire at least 2 key individuals*** to support existing product sales & marketing activities and operations management to free up Jeff Steiner's time and energy to focus on business strategic and growth initiatives. This

Hi-Tek Rubber, Inc.

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to negative and possibly devastating results.

COMPANY PROFILE AND BACKGROUND

Hi-Tek Rubber, Inc. is a Minnesota "C" corporation, organized and incorporated June 1999. The company headquarters is currently located at 28433 Hwy 65 N.E. Isanti, MN with manufacturing occupying a former school building in Ogilvie, MN. Gordon Cell founded the company for the express purpose of manufacturing a rubber shingle replacement for slate and cedar shingles using recycled rubber from tires as one of the main ingredients. The company operates within the North American Industrial Classification System (NAICS) code 326200, which includes former SIC code 3069, footwear and rubber fabricated products.

The market for simulated slate and cedar shingles is high-end residential and commercial buildings. This niche market represents about 7% of the roofing industry. Initial information suggest that the market potential represents approximately $600 million annual sales. Capturing a small portion of this potential revenue assures Hi-Tek Rubber of a bright future assuming manufacturing costs can be managed to an appropriate level relative to product sales price.

Proof of concept was dramatically demonstrated by production of simulated slate shingles and installation on a house built in the late 1800's and located at 266 Summit Avenue, St. Paul, MN. The historical house is reviewed in the journal, American Society of Interior Designers, Showcase Home, May-June 2001 issue. The simulated slate shingles preserved the historical look while greatly reducing the difficulty and cost of installation compared to slate. Comments received from installers, insurance agencies and interested observers gave further impetus for development of capabilities for volume production of the rubber-based simulated slate shingle.

Company assets were initially acquired from CAMCO, a former manufacturer of rubber molded and rubber coated products. Hi-Tek Rubber capabilities are grounded in the expertise derived from the production rubber-molded products for agricultural equipment such as sugar beet harvesters. Additional production assets and molding process concepts have been secured to allow initial ramp up in production capacity. Full capacity will be developed as an ongoing expansion effort to fulfill demand in the niche market in which Hi-Tek Rubber will compete. A three-phase approach brings initial production on line in the 3rd quarter 2001, phase two automates key processes from phase 1 and expands milling capacity. The 3rd phase is expansion of

OWNER'S OBJECTIVES

The owner's objectives for the business can be classified under the categories: Business Growth, Market, Operations and occasionally Personal. Goals were derived from the assessment interview process as well as from financial statements, planning documents and other information provided by company management.

Operations:
Operations cover all aspects of administration, managing and operating the manufacturing facilities.

1. Fully utilize production potential at Olgivie, MN plant with addition of presses and milling capacity as determined by facility floor space.
2. Use contract labor in the near term to fulfill 3 shift, 5 day work week operations.
3. Maintain management and administrative personnel at FY2001 levels through FY2002 then add minimal staff to achieve low SG&A overhead rate.
4. Expand operations to other strategic locations where material processing and production capabilities are co-located to the greatest extent possible.

Market:
1. Achieve 5% to 10% share of niche market for simulated slate and simulated cedar shake shingles in the next 5 years.
2. Pricing for simulated slate shingle targeted for $280 per square (100 square foot coverage).

Business Growth:
1. 100% annual revenue growth achieving $17 million sales within three years.
2. Pretax profit of 30%.
3. Utilize investors and founder financing to cover operating capital needs through FY2002 then uses retained earnings and minimal debt to finance

CONCLUSIONS

1. Simulated slate shingle market potential appears real and volume production is viable.
2. $280 / square price and 30% pretax profit ***goals are incompatible*** and not achievable with proposed production technology.
3. Volume production with pricing at $320 per square generating ***10% to 11% pretax profit is reasonable.*** FY2001 production volume must be 4,700 squares at $457 per square to generate same profit level. Pricing does not address distributor mark-up requirements.
4. Ogilvie production facility will run ***out of space by year-end 2002.*** Further growth requires another facility with co-location of material processing, milling and production operations to the maximum extent possible.
5. ***Prior year financial statements need to be restated*** consistent with the reclassification of certain accounts that bring statements more in line with industry practices.

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. Establish full 3-shift capability for #9 press and at least 3 Argos presses equivalent to 6 months and 4 months operation respectively in FY2001.
2. Obtain business funding totaling $845,000 in FY2001 and approximately $1.77 million in FY2002 to support asset growth and operating capital needs assuming retained earnings provide approximately $320,000 net contribution during this period.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

The priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in accomplishing the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Company priorities are Operations driven first followed by Market then Business Growth. This priority order represents actions that proves initial production capability and sets the stage for profit generation that is key to attracting further investment and financial aid to fuel business growth.

Operations:

- ***Aggressively push implementation*** of multi-platen presses to minimally achieve 3 shift operation of the #9 press and at least 3 Argos presses by end of 3rd quarter FY2001.
- ***Plan for expanded milling capacity*** to be on line in 1st quarter FY2002 and four more Argos type presses by end of 2nd quarter FY2002. Plan should ***provide for automation*** of material movement and trim processes.
- Strategic planning should ***provide for additional facilities*** with co-location of material processing, milling and product production. Facilities need to accommodate ***25 to 30 presses*** and supporting processes within the next five years.
- Consider heat recapture from radiated energy generated by presses and reuse for either heating building or re-injection into the press heating system.

Market:

- Establish a ***time phased pricing schedule*** directed at specific customers consistent with manufacturing ability to deliver required product volume.
- Clearly define and establish a written market strategy that accommodates ***realistic pricing and profitability goals***. Include priorities for which customer group is to be targeted first.

Business Growth:

- ***Aggressively pursue equity funding and capital lease options*** to support FY2001 through FY2002 production ramp up to full production volume. Subsequently use minimal debt and, principally, retained earnings to fuel further growth. ***Document time-line*** for acquiring funding and implementing assets.
- ***Reexamine pretax profit goal*** to be consistent with product pricing and cost realities. 10% to 11% pretax is reasonable but still ***exceeds industry average*** pretax profit of 3.2%.

Phoenix Recycling Corporation

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public company data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following the recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to devastating results.

COMPANY PROFILE AND BACKGROUND

Phoenix Recycling Corp. is located at 2823 N. Fairview Ave. in Roseville, MN. Harry Blair III founded the company in 1989 for the express purpose of recycling plastic materials from the consumer curb-side collections and post-industrial waste stream. The company started with one grinder and one employee with a vision to fill a void in an undeveloped market. An extrusion line and wash line was added in 1992 to expand capabilities and capacity. In 1996, an automated sort line was added as the most recent business expansion. PET and HDPE with some HMWPE are the primary materials processed by Phoenix Recycling.

Mr. Blair has worked extensively with the Minnesota Office of Environmental Assistance and major waste collections companies to develop both a material source and customer base for processed plastic materials and recycling services provided by Phoenix Recycling. Brian Treakle joined the company in 1994 to handle accounting tasks and now serves as General Manager.

The company currently leases 42,000 square feet of manufacturing space including 1,100 square feet of administrative space. Major equipment includes an integrated sorting line with in-line grinding and baling equipment plus a large wash line and water reclamation system. Multi-shift operation is employed to maximize production efficiency and meet customer demands.

Products currently provided include resale of baled plastic materials, washed and unwashed flake HDPE & PET as well as pelletized HDPE. Special blending of recycled plastics is also provided to meet customer specifications.

OWNER’S OBJECTIVE

The owner’s objectives for the business can be classified under the categories: Business Growth, Market, and Operations. Goals were derived from the assessment interview process as well as from financial statements, planning documents and other information provided by company management.

Business Growth:

- Business growth is viewed as an essential survival element. A value-added product is desired for the coming year with expansion of existing product group volume to more than double output over FY1999 levels.

- ***Increase sales*** to 60% over FY1999 in FY 2000. Then double FY 2000 sales by FY 2004.
- Forecast and recommended retained ***profitability grows to 10%*** over the next 5 years from a net loss in FY1999.
- Relocation of the business to a more economical and central location is a component of business growth strategy depending on introduction and nature of a new product line.
- New product line targeted to use up to 50% of Phoenix Recycling material output thus providing a buffer against market price fluctuations and constraints while increasing overall profitability.

Market:

- Market focus is and will continue to be on plastic resin reclamation services and supplying processed plastic resins recycled from the post consumer curbside and postindustrial waste stream.
- Primary customer base will continue to be blow molding, extruded products, and injection molding and carpet fiber companies.
- Continue focus on PET, HDPE and HMWPE plastic resins with expanded capability to deliver custom tailored resins meeting specific customer requirements.
- Expand from a regional company with addition of research and development capabilities beyond 5 years.

Operations:

Operations cover all aspects of administration, managing and operating Phoenix Recycling facilities.

- Invest in more productive assets to support a minimum 46% improved throughput as measured by reduced costs and increased product volume.
- Expand asset utilization to full third shift with addition of personnel as needed to maximize production output.
- Add bilingual staff to facilitate communications with a largely Hispanic production staff. Add one or more administrative staff to offload some of current tasks from Brian.
- Update offices and equipment with particular attention to environmental controls that eliminate humidity and consequent mold growth on walls, floor and ceiling particularly in the conference room.
- Rearrange existing facility space to achieve more optimum material and work flow.

CONCLUSIONS

1. Fiscal Year 2000 is a very critical year for Phoenix Recycling. Product diversification and significant revenue growth to yield positive profitability is essential otherwise it is highly unlikely the company can survive without substantial cash infusion in the short term. Failure to put in place solid plans to achieve the recommended growth will result in company failure and likely bankruptcy.

2. A negative Z Score for FY1999 indicates high probability of business failure. This metric is converted to a favorable 3.4 value by FY2004 assuming recommended growth and improvement is achieved.

3. Net profit losses exist for all product lines except the “sorted, grind & wash” products. The greatest loss occurs on the “brokered” and “sorted and baled” products with -164% and -174% respective losses for each.

4. Market competition tends to place a ceiling on product pricing options for equivalent products. The company is also squeezed from the supply side by competition and price demand for incoming material stock. Therefore, new product lines manufactured from recycled plastics processed by Phoenix Recycling must generate sufficient value added revenue to offset and stabilize the influence of market fluctuations.

5. Current floor space appears to be adequate to meet growth needs assuming 1999 product mix, a maximum of 7 days inventory held on hand and asset productivity increases to double 1999 output. Some bulk storage capability may be

required to handle temporary quantities of finished goods. Addition of a new product line or business activity cannot be handled within the current facility.

6. Phoenix Recycling must substantially improve asset productivity and throughput capability on the sort line, baling and grinding processes. This involves asset replacement and upgrades while minimizing additions to production staff.

7. Personnel growth can be expected to grow from 25 in 1999 to 62 in FY2004 with current level of asset productivity. Improved equipment throughput capability could minimize growth to only 31 employees while doubling production volume output.

8. Wage and salary increases account for the major contribution to cost of goods sold growth and consequent profit losses. Secondary factors are attributable to supplies and maintenance costs.

9. Improved environmental controls are necessary for both production and office areas. Substantial mold growth was observed in the office conference room, which likely represents an unhealthy work environment for administrative staff. Production air quality, while possibly not a breathing hazard due to air borne "paper" dust from grinding operations, is a fire hazard because of build up on machines as well as facility structural components.

10. Office computer equipment is outdated and needs to be upgraded in order to support more recent software releases.

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. 60% revenue increase over FY1999 and positive net profit must be achieved in FY2000 with doubling of revenue and growth to 10%-retained profit by FY2004 is absolutely essential.

2. Current liabilities represented as short-term notes payable must be reclassified to "Additional Paid in Capital" as a first step toward strengthening the company balance sheet.

3. Addition of a value added product line is critical to offsetting market pressures and price fluctuations that directly influence Phoenix Recycling's ability to be profitable.

4. "Brokered" materials product line must be eliminated or at least reduced to the point where it presents little impact on overall profitability. Conversion to a value added product line usage would be the best alternative.

5. Asset productivity, particularly in the sort line, baling and grinding processes, must be improved including replacement of inadequate equipment and expanding capacity in these areas.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

The priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in supporting the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Phoenix Recycling priorities are arguably Market driven first followed by Business Growth then

Operations. This priority order represents actions that lead from the least to the greatest requirement for financial investment.

Market:

- The first market actions need to ***focus on deriving positive profit levels*** from all product lines while investigating development of a value-added product line. "Brokered" materials is not profitable under any current scenario and either needs to be eliminated, or increase sales prices to at least double current levels or converted to a value-added product line.

- ***Increase sale prices*** on all other product categories by 10% to 100% with concurrent improvement in operating efficiencies.

- ***Target sales for FY2000 at 60%*** over 1999 sales. Then double FY 2000 sales in FY 2004 with pricing consistent with generating improvement to 10% retained profit in the same time frame.

Business Growth:

- ***Increase sales*** to 60% over FY1999 in FY2000 with goal to then double FY2000 sales in FY2004. Pricing and product mix goal should be set at 1.6%-retained profit in 2000 with growth to 10% in FY2004.

- ***Capital restructuring*** is required beginning with reclassifying current liability short-term notes to additional paid in capital.

- ***Manage gross margin*** to ~ 15% in FY2000 with improvement to 20% in FY2004.

- Use ***retained profits*** to provide working capital and fund asset improvement or replacement needed to support revenue growth while solidifying financial strength by reducing debt and improving owners' equity.

Operations:

- ***Manage working capital performance*** improvement from a negative 79% of sales to approximately 8.4% in FY2004. Working capital components to be addressed are as follows: ***Manage total inventory*** at 7 days of sales or less. ***Improve Accounts Receivable*** from 35 days of sales tied up in receivables to ~30 days. ***Improve*** profitability to enable ***Accounts Payable*** improvement from 97 days of cost of sales in 1999 to 31 days in 2000 with further improvement to 24 days in FY2004. ***Manage cash on hand*** equivalent to approximately 8 days of sales.

- ***Add assets and minimal personnel to support business growth*** with a targeted level of investment that maintains annual depreciation at approximately current levels. Specific assets that need at least 46% throughput and efficiency improvement are baling, sorting and grinding operations. Plan for doubling total material processed over the next 5 years.

Pike Companies (Nylon Board Manufacturing, Inc.)

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to negative and possibly devastating results.

COMPANY PROFILE AND

Pike Companies, Inc. was founded as a Minnesota subchapter "S" corporation on May 9, 2000. The company evolved from Pike Construction, which has been in the building construction business for over 15 years. Subsequently, in September 2001, Nylon Board Manufacturing was formed as a division of Pike Companies. Mark Pike is the sole owner, President and CEO and Timothy Erickson is the senior manager. This business assessment report specifically focuses on the Nylon Board Manufacturing division although the text and report title refers to Pike Companies. Background and other selected information are derived directly from the July 16, 2001 Pike Companies Inc. Business Plan.

Pike Companies' construction background provided insight into the weaknesses of many commonly used building materials. Many of these products are unsuitable for use in their current applications. A prime example is in the home siding industry, where wood, Masonite, and composite siding proved to be unsuitable materials. These products have been replaced by more durable, water-resistant materials like vinyl and steel siding. This change in materials also occurred in the window industry, where wood exterior frames have been replaced by vinyl, aluminum, and steel. For years there have been similar problems with the sheeting materials used in outdoor advertising, boat construction, R/V's, trailers, and home construction. In fact, many of these industries periodically replace weather-damaged sheeting with the same material because there is no alternative.

Pike Companies, Inc. has found a better solution. Company focus is on providing a long-lasting alternative for plywood, green-treated plywood, and Oriented Strand Board (OSB). When exposed to moisture, these products swell, rot, and deteriorate. Further, these products are subject to termites, carpenter ants, and rodent damage. The new product will have the same workability as the wood products, but will be waterproof, insect-proof, and impervious to rodents.

The company has developed a unique method for recycling nylon carpet from both post-consumer and post-industrial sources into a variety of sheet products suitable as a replacement for plywood, OSB and other construction applications served by these other materials. Initial markets for the sheet product include advertising billboards, trucking bed sheeting, R/V construction and marine plywood replacement applications.

Development on the equipment and processes to produce the new materials has been under way since mid-2000. Production equipment has been fabricated and is now in place at the manufacturing facility located at 7832 21st Avenue NW, Medford, MN 55049. Initial test run and proofing of the equipment is expected to take place over the next several weeks (through December 2001) with the expectation that initial production quantities of ½ inch 4 ft by 8 ft sheets will be available in the first quarter of 2002.

Nylon Board Manufacturing is a start up company that has yet to produce and sell its first product. As such, the conclusions, recommendations, forecasts and projections are based on comparative industry performance and best estimates of company processes and equipment capabilities.

OWNER'S OBJECTIVES

The owner's objectives for the business can be classified under the categories: Business Growth, Market, Operations and occasionally Personal. Goals were derived from the assessment interview process as well as from financial statements, planning documents and other information provided by company management.

Operations:

Operations cover all aspects of administration, managing and operating the manufacturing facilities. Goals may also embody sub-goals or require additional definition as indicated by bulleted items within each enumerated goal.

- Recycle and use nylon type 6 from post consumer and post industrial carpet in production of 4 foot by 8 foot sheets as a replacement material for plywood in selected applications.
- Establish production capability to process 30,600,000 pounds annually of nylon carpet waste materials into specialty sheet products.
- Operate production six days per week, three shifts per day and 300 workdays per year.
- Manage accounts receivable and finished goods inventory at 30 days of sales each. Manage accounts payable at 30 days of cost of sales.

Market:

- Provide nylon sheet products to the specialty construction and manufacturing segments where water, rot and insect resistance is required and current plywood products do not adequately meet requirements.
- Initial sales to target outdoor advertising market segment using ½ inch 4x8-foot sheet product with a target weight of 50 pounds per sheet.
- Focus sales and marketing effort on large wholesale and manufacturing companies and avoid direct retail sales. Expand market to national presence.

Business Growth:

- Achieve $11 million sales within three years with projected 67% of sales in pretax earnings.
- Expand to strategically located facilities as opportunity arises.
- Use retained earnings to fuel further growth and avoid any significant long-term debt.

CONCLUSIONS

1. The highly automated production equipment has not been tested to determine actual output capacity. As such, achieving 30,600,000 pounds annual production level is probably not achievable with the current equipment. Production output is more likely to be approximately 23,300,000 pounds annually.
2. Primary unknown factor is actual processing equipment capacity and ability to consistently produced a sheet product at the desired weight and density. The first concern is whether bulky fiber material can be fed in consistently large enough quantities to uniformly maintain extruder throughput. The second concern is that feedstock consists of mixed polymers, adhesives and other materials, some of which will volatilize at the extrusion temperatures employed. This may cause product density and weight to vary considerably from sheet to sheet.
3. A target weight of 50 pounds for the ½ inch 4x8 foot sheet appears desirable but compared to a theoretical weight of 95 pounds for a "pure" nylon sheet, the target weight implies the presence of a very light material equivalent to approximately

47% porosity. It is possible that the first pass of carpet materials through extruder process will have to be pelletized, then the pellets fed back through the extruder with an additional "blowing agent step" to produce the actual sheet product at the desired weight and density. A second pass through the extrusion processes will add $0.05 to $0.15 cost per pound for material.

4. Product price point seems reasonable compared to marine plywood, oriented strand board and other competing plastic products.
5. Profit goal is unrealistic and should be reevaluated. Adjustments to material and labor costs made in the detail analysis reduced the profit level, the result was yet a very healthy 34% to 40% pretax profit. Selling, general and administrative expenses are extremely low (~5% of sales) compared to the average (~25%) in SIC code 3089, miscellaneous plastics manufacturing industry.
6. The company should be able to double revenue growth every two to three years assuming achievement of year 1 and 2 performance as defined by the adjusted plan presented in the detail discussion and that retained earnings are fully used

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. The obvious and most pressing factor is getting the production equipment fully operational then test both operational capacity and sheet product quality consistency.
2. Product quality requirements for each market segment may vary, which will drive changes in production process parameters.
3. Material supply and cost strategy is essential to assure minimal material on hand to meet production requirements without occupying excessive manufacturing floor space at reasonable cost.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

The priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in accomplishing the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Company priorities are Operations driven first followed by Market then Business Growth. For the most part, company owners recognize which actions must be addressed as is evident in stated goals. Therefore, many of the recommendations mirror company goals.

Operations:

- Push to get production equipment fully operational by year-end 2001 then test for full operational capacity and sheet product quality consistency.
- Refine and adjust material processing characteristics to produce sheet products that consistently meet each market segment quality requirements.
- Adjust personnel requirements to comply with 2,080 hours (or less) annually compared with planned 300 workdays at 8 hour per shift or 2,400 hours.
- Establish a material supply and cost strategy to

maintain minimal material on hand to meet production volume requirements without occupying excessive manufacturing floor space.

Market:

- Research and develop product quality requirements for each market segment, then provide to operations for optimizing production process parameters.
- Validate product demand in each target market and get written sales order commitments.

Business Growth:

- Use the "Adjusted Plan" projections presented in the assessment report detail to guide business growth and operations management initially then refine cost & expenses as operational capabilities are validated.
- Plan for doubling revenue growth every two to three years assuming achievement of projected

Recycled Plastics, Inc.

BUSINESS ASSESSMENT EXECUTIVE SUMMARY

This report section provides an overview of the assessed company and insight into the strategic direction expressed for the business. Business objectives are followed by conclusions derived from current observations and analysis of past performance. Comparison of goals versus capabilities and forecast results yields insight into the critical factors that must be addressed by management in order to achieve stated objectives. In some cases, the implied objective of long-term survival dictates near-term actions that may not be expressly stated by company ownership.

Recommended actions are intended to move the company toward stated objectives while improving financial performance to be equal or superior to the average company that competes in the same market segment. SIC code and other public company data is used for comparative purposes since there is no specific reference data for recycling companies.

Disclaimer: Following the recommended actions cannot guarantee success but rather serve to guide management around pitfalls that otherwise could lead to devastating results.

COMPANY PROFILE AND BACKGROUND

Recycled Plastics, Inc., (RPI) is a manufacturing company specializing in utilizing post consumer and post industrial waste plastic as the raw material feedstock for its finished product. These waste plastics are manufactured into high quality, high-density polyethylene 4' x 8' sheets of varying thickness, which are marketed and sold to commercial industries nationwide. Extruded sheet materials are cut and fabricated into value-added parts for the marine and recreational industries.

Recycled Plastics, Inc. is a Minnesota corporation, organized and incorporated July 5, 1991. The company is currently located at 609 County Road 82 NW in Garfield, Minnesota. Market planning, staffing, and operational planning was completed December 1992 and on January 5, 1993, the doors to the production facility were opened. Actual production of product and sales commenced in November 1993 following a 10-month process development effort.

The company has undergone major evolution changes since its inception. Steve Porter became involved as a passive minority owner in 1991 then took an active role when the company slid into financial despair. In 1994 he bought 70% of the company then in 2000 purchased the remaining shares. Continued growth depended on bringing in more management expertise therefore minority positions in the company were offered to Tom Schabel, Al Sholts and Brian Bloedorn. These individuals are executive management personnel with Alexandria Extrusion Company. This strategic alignment and ownership provides for key managerial expertise and for joint marketing opportunities with an established international manufacturing company.

This new management arrangement has been active, although not finalized, in developing strategic goals and planning for targeted marketing efforts. Planning efforts and goals developed are an integral part of this business assessment report.

OWNER'S OBJECTIVES

The owner's objectives for the business can be classified under the categories: Business Growth, Market, Personal and Operations. Goals were derived from the assessment interview process as well as from financial statements, planning documents and other information provided by company management.

Business Growth:

1. $1,000,000 in new sales by the end of 2001 for

total of approximately $2,000,000.

2. Continued aggressive growth (after 3 years) at 10-15% pre tax profitability.

Market:

1. Expand current market niche in value-added production of cut and assembled plastics parts for the marine and recreational vehicle industry.
2. Focus on expanding current customer sales first then expand to 23 specifically targeted customers where potential exists for profitable value-added production services. Longer-term market focus to include the furniture, house wares, agriculture and building supplies industries where desired profit potential exists.
3. Develop innovative leadership in utilizing recycled plastics material in new and better ways. In 3-5 years, establish national and international reputation for very efficiently utilizing waste material that can be recycled.
4. License or establish joint facilities in international arena when opportunity is financially feasible.

Operations:

Operations cover all aspects of administration, managing and operating the manufacturing facilities.

1. Be a highly efficient "cut" product shop with focus on Routing, Assembling, Thermoform and Fabricating processes. Potential new processes include casting and carpet board fabrication.
2. Put in place a budgeting process, particularly for R&D purposes and formalize business practices.
3. Selectively and cautiously add indirect personnel with potential to add plant manager, salesman and office manager after achieving $2 million in sales. Add direct personnel as needed to meet production demands consistent with increased sales.

CONCLUSIONS

1. Recycled Plastics Inc., has the potential for significant growth and profitability given that the focus is on using recycled plastic materials to produce value-added products. The company, by Steve's admission, had reached the limit that could be achieved without bringing in additional management and sales expertise. The skills and experience brought to bear on RPI by Tom Schabel, Al Sholts and Brian Bloedorn substantially enhances the company's potential for profitable growth.
2. The company currently has more than 70% of revenue coming from a single customer. This is a dangerous situation in that a downturn in business for this single customer could easily spell disaster for RPI. A year-end push for targeted and joint marketing actions with Alexandria Extrusion is an appropriate first step to correct this situation.
3. Current assets have the potential to more than double current revenue by employing multi-shift operation and more efficient utilization of resources. Current routing assets are used at less than one full shift operation.
4. Existing facilities are adequate for growth over the next year or two but then must be expanded to accommodate greater work volume.
5. Supply of recycled plastics, as a raw material at a competitive cost, is major concern given that there is market consolidation and loss of smaller suppliers. RPI uses either flaked or pelletized plastics as well as sheet stock. The value-added products are milled or cut from various thickness sheet stocks. Sheet stock is currently purchased but some consideration is being given to establishing an in-house sheet extrusion capability. Economic viability to bring this capability in-house at the volume of sheet stock consumed by RPI is a major concern.
6. RPI processes currently support a limited product mix with parts cut from sheet stock being the predominant revenue source. Compression molded sheet stock processing occupies a substantial amount of floor space but generates a small fraction of revenue. Actual product cost by major process is not well defined.
7. Company plans for revenue and profit growth are aggressive and require careful focus of management attention if there is any chance to achieve the goals as currently stated.

CRITICAL SUCCESS FACTORS

Critical success factors are those few things the business must absolutely and successfully address or there is a strong probability that the company cannot achieve its long-term objectives.

1. Diversification of customer base is the first critical action to relieve the risk associated with a single customer as the majority revenue source.
2. Developing a supplier base of competitively priced recycled plastics materials in both sheet stock and flaked or pellet form in the volumes to support the projected growth is a critical concern.
3. Workflow optimization and maximum utilization of assets on a multi-shift basis is the key to achieving maximum profitability. This obviously means attracting and retaining a work force capable of maintaining efficient production operations on a second and potentially third shift.
4. The aggressive goals require management to continually refine and revise business plans to focus actions only on those efforts that directly support the revenue and profitability growth goals.

RECOMMENDATIONS SUMMARY

Recommendations are presented in priority order for focused implementation actions. The first set of recommendations tends to take priority over the next set but in practice several recommended actions could be carried out simultaneously.

The priorities were established by assessing which actions provide the most immediate benefit or are necessary to enable the next set of recommended actions. These actions should be incorporated into a written Business Plan including supporting Strategic and Marketing Plan to guide all employees in accomplishing the business growth goals. A summary listing is provided below and followed on subsequent pages with a more detailed presentation and discussion.

Company priorities are Market driven first followed by Business Growth then Operations. This priority order represents actions that lead from the least to the greatest requirement for financial investment.

Market:

- Conduct in depth market research to determine the profit and revenue potential for value-added products produced from recycled plastics considering current and future RPI production capabilities.
- Selectively expand the customer base first in the current market segment of marine and recreational products where RPI can delivery value-added cut and formed parts.
- Focus with laser-like attention on seeking out those potential products and services for customers where a high operating profit can be generated. Simply obtaining work for the sake of keeping busy or generating some revenue is not adequate within the framework of the business goals.
- Continually track profitability by market segment and customer to assure marketing efforts are optimally charting a course that supports stated business goals.

Business Growth:

- Critically examine the revenue and particularly the profitability growth goals for a reality check. Can the goals be realistically achieved?
- Flesh out and communicate business plan and strategy so that all business personnel are clearly aware of company goals. Include a strategy for expanding into the national and international market segments targeted by RPI.
- Use detail financial forecast as guideline in establishing budgets as well as defining business investment priorities. (see also operations section)

Operations:

- Plan for multi-shift operation to maximize current asset utilization with growth to approximately 58 employees by FY2005.
- Develop a budget and assign management responsibility based on the forecast financial performance presented as part of this business assessment. Pay particular attention to managing working capital components such as inventory, cash, receivables and payables.
- Critically analyze and evaluate the cost contribution from every major production process to individual product line cost and profit. Selectively invest in assets to maximize throughput.
- Optimize production workflow in the current facility and minimize floor space assigned to the compression molding of sheet stock. Plan for expansion in FY2002 of floor space assigned to cut and formed products.

ATTACHMENT A: BUSINESS ASSESSMENT REPORT

Company Profile and Background

Conclusions

Recommendations (Prioritized)

Assessment Findings

Management

- Key Personnel
- Roles & Responsibilities

Market Plans

- Business Mix
- Forecast/Plans
- Assumptions

Observations & Employee Recommendations

Finances

- (Past 3 to 5 years, annual report & notes)
- Income Statement, Including detail:
- Balance Sheet, Including detail:
- Cash Statement (uses and sources of cash)
- Shareholder Equity

Processes For Office, Support & Manufacturing

- Safety
- Manufacturing Process, Paper Work, Information & Material flow
- Process Effectiveness
- Capacity (current and projected)

Facilities & Equipment

- Offices & Support Facilities
- Manufacturing
- Receiving & Shipping
- Warehouse & Storage
- Utilities & Service Requirements

Quality Control

- Incoming Materials
- In-process Controls
- Finished Goods

Management Systems

- Computer Hardware
- Software
- Communications & Support

Personnel Requirements

Training & Education