UOMA PROGRAM REVIEW
FINAL REPORT

Used Oil Management Association

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TABLE OF CONTENTS

1 EXECUTIVE SUMMARY

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BearingPoint was engaged to conduct a review of the used oil recycling programs across Western Canada. The program review was conducted through a four-phase approach. The phases include the development of a comprehensive project charter, surveys and interviews with almost 400 program stakeholders, over 2000 public surveys conducted by Ipsos Reid, and benchmarking UOMA's program against 14 leading European and North American programs.

The core phase of the program review was a 24-question survey provided to all stakeholders augmented by thirty plus selected in depth interviews. A stakeholder list composed of 396 organizations representing Board Members, Suppliers, Collectors/Processors and interested Associations across the four provinces was created. A stakeholder survey website was developed and the survey was conducted through the Internet with a hardcopy option for those who preferred it.

The survey was conducted throughout October and November of 2004. Out of the 396 organizations that were invited to participate, 119 responses were received representing a 30% response rate. This is a superior response rate and is considered to be statistically valid given adequate representation of all stakeholder groups as well as an acceptable sample within each province.

From this, a total of 36 stakeholders representative of each group were selected from each province for detailed interviews. Ultimately, 30 interviews were conducted as several selected individuals and/or organizations were unable to participate due to conflicting timing and scheduling issues.

Criterion Research Corporation (Ipsos Reid) conducted the third phase of the project. A total of 2006 telephone interviews were conducted with the head or joint head of each household in randomly selected British Columbia, Alberta, Saskatchewan, and Manitoba households throughout October and November of 2004.

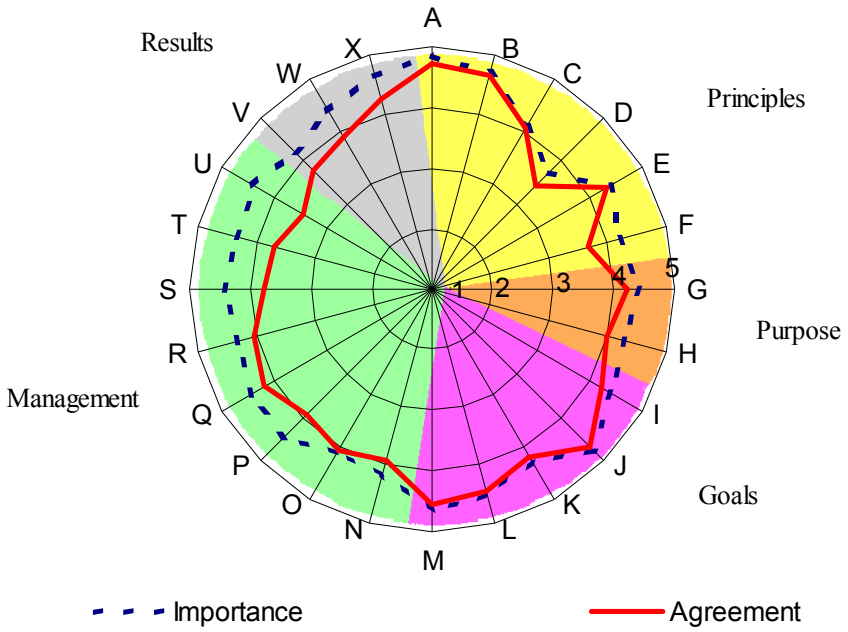
The final phase of the project was to benchmark UOMA's program against other used oil management programs. A list of 14 other used oil management programs was developed, and a set of 26 questions was designed to gain insight into five categories of program performance: program overview, results, end use, policy and program design.

Overall, the stakeholder survey results are very positive. UOMA's program compares very favourably to all other programs benchmarked, and public surveys indicate recycling attitudes and behaviours are constantly improving.

All stakeholders groups overwhelmingly support UOMA's principles, purpose, and goals. UOMA also appears to be a leader in program design, collection, and compensation scheme compared to other global used oil management programs. All benchmarked programs were found to have common themes, but each is somewhat unique. UOMA is a world leader in maximizing used oil collection rates (over 75%) and re-refining rates (30%). Finally, the public surveys indicate behaviour and attitudes have shifted over time to sustain these extremely high collection rates.

The stakeholder survey consisted of 24 statements in five program categories—principles, purpose, goals, management and results. Participants were asked two questions for each statement—what was their perspective of the importance of the statement and category, and did they agree with the statement (all statements were written in a positive form). The overall survey results illustrated in exhibit 1-1 and the actual questions are listed thereafter.

Exhibit 1-1
UOMA – Agreement versus Importance for All



In regards to the actual rating, both importance and agreement were measured on a scale of 1 through 5.

For importance, the values were coded as follows:

1. Not at all important
2. Somewhat unimportant
3. Neither unimportant nor important (neutral)
4. Somewhat important
5. Extremely important

For agreement, the responses were coded as follows:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree (neutral)
4. Agree
5. Strongly agree

The stakeholders were presented with the following 24 questions designed to gain insight into five categories of program performance – principles, purpose, goals, management, and results.

Principles

A. Used oil and related materials should be collected and removed from the waste stream.

B. Used oil and related materials, once collected, should be reprocessed or recycled.

C. Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

D. Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

E. All used oil material collected should be delivered to a government-approved re-processor or recycler.

F. Return incentive rates paid to re-processors and recyclers should be the same and should not favour different technologies.

Purpose

G. UOMA's primary focus should be on the collection of used oil materials from the waste stream.

H. I understand that my participation in UOMA activities helps the organizations' achieve used oil material recovery in Western Canada.

Goals

I. UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

J. UOMA should ensure the administration of programs is performed in a cost effective manner.

K. A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

L. The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

M. UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

Management

N. Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

O. On the whole, my experience with UOMA administrative staff has been positive.

P. UOMA appears to be fair and consistent in its administration of the used oil management program.

Q. A board that incorporates stakeholders' interests directs UOMA's operations.

R. It is clear how I can communicate my concerns with UOMA.

S. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

T. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

U. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Results

V. Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

W. UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

X. Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

The program review results highlight the following themes:

- Program Principles, Purpose, and Goals
- Program Awareness
- Recycling Philosophy
- Compensation Scheme
- Environmental Handling Charge (EHC) and Return Incentive (RI) Rates
- UOMA Management
- Overall UOMA Results

1.1 PROGRAM PRINCIPLES, PURPOSE, AND GOALS

Overall, UOMA stakeholders believe that UOMA's principles, goals and purpose are very important and strongly agree with them. Stakeholders uniformly believe that all used oil materials should be collected and removed from the waste stream. In exhibit 1-1, less agreement in statement D shows that stakeholders have divergent views on the roles of both private and public sector involvement in the program in both the short and long run. Suppliers and processors displayed differences in polarity by either supporting or opposing self-sufficiency of the program—a significant portion of stakeholders appear to support the status quo of the program and to do support self-sufficiency. In addition, stakeholders supported the concept that all used oil material collected should be delivered to a government-approved processor or recycler.

There was a general consensus among stakeholders for increased harmonization of Western Canadian used oil programs. Associations most strongly supported this idea. UOMA stakeholder associations were found to be less likely to strongly agree with UOMA's principles, purpose and goals than collectors/processors, suppliers and board members. A contributing factor may be the unfamiliarity from the associations with UOMA's program, as demonstrated by their unclear participatory role in UOMA (statement H).

UOMA's principles, purpose and goals were very similar to those of other programs. When benchmarking other used oil management programs, four similar themes in regards to program principles, purpose, and goals were developed:

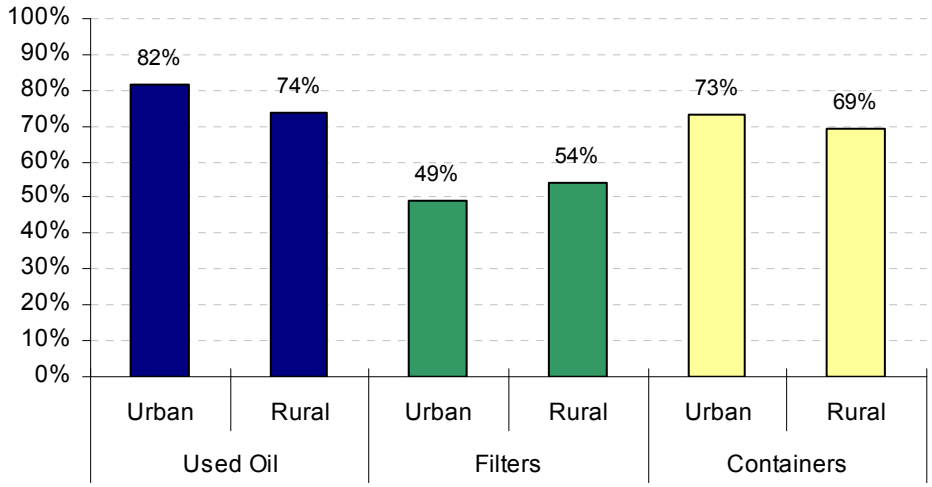
i. Collection of used oil as a hazardous waste.
ii. Collection of used oil and related materials in order to avoid environmental externalities.
iii. Collection of a valuable natural resource.
iv. To provide convenient ways for consumers to recycle of used oil in environmentally sound ways.

Of 14 benchmarked programs, only 4, including UOMA, collected used oil, filters and containers. Only three programs recycled used oil filters in an environmentally safe way. Utah unsuccessfully proposed a bill to amend the Used Oil Statute to include filters. In Australia and California, the Return Collection Facilities (RCF) can collect used oil filters and containers, but there is no incentive to do so. Two programs were able to provide collection rates for oil filters – UOMA collects 79% of total filter sales and Florida collects 65%.

All programs except South Africa have government-regulated programs. Refiners of crude oils now fund South Africa's program. Of 14 benchmarked programs, 11 have government-approved collectors and processors. The US State programs appear to be based on either Florida or California models. The California program gives incentives to collectors where as collectors in the Florida program sell used oil to processors. Both States grant funding to the programs to set up return collection facilities.

The Western Canadian Public Survey found that 40% of Western Canadian's were Do-It-Yourselfers (DIY – in order to qualify as a DIY, the respondent had to change his or her own oil at least once per year). A breakdown found that 32% of urban respondents were DIY while 52% or rural respondents were DIY. Exhibit 1-2 displays the recycling rates for DIY.

Exhibit 1-2
UOMA Do-It-Yourselfer Recycling Rates



1.2 PROGRAM AWARENESS

Generally, it appears that UOMA's stakeholders support UOMA broadening its focus to include additional educational activities, infrastructure, communications, and potentially add other used oil materials such as Glycol. Stakeholders agree that UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada. The public survey found that 37% of respondents did not know about used oil management associations. The urban-rural breakdown found that 39% of respondents living in urban areas did not know about used oil management associations while the percentage for rural areas was 34%.

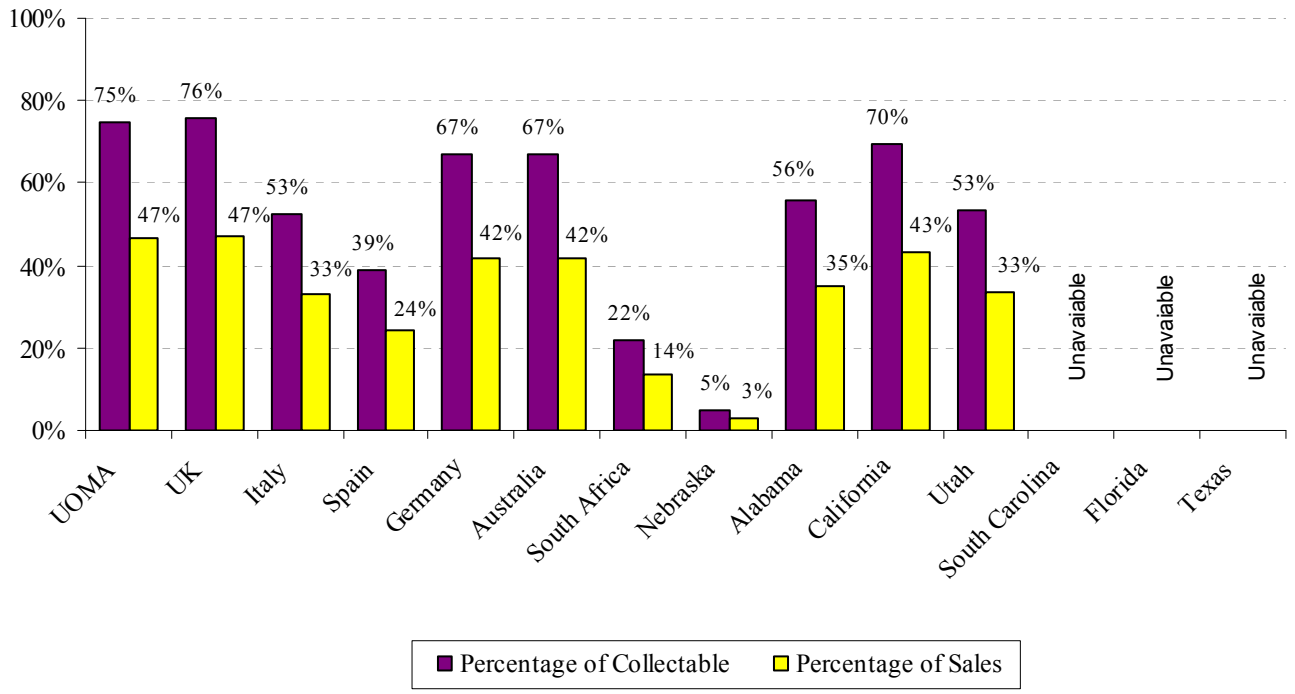
Compared to other used oil programs, UOMA does not consistently state that increasing program awareness is a part of its goals or purpose. In the US, five out of seven State programs have set a goal of using educational materials to increase public awareness about used oil recycling. The State of Nebraska promotes used oil recycling through public television advertisements featuring NASCAR driver Jeff Gordon. For these five programs, collection rates varied from 5% to 56%, significantly less that UOMA's (75%) implying that a focus on increasing public awareness does not increase collection rates, or that the educational strategy was improperly implemented.

1.3 RECYCLING PHILOSOPHY

UOMA stakeholders uniformly believe that reprocessing or recycling used oil and related materials is extremely important. There is a strong consensus that Return Incentives (RI's) should not favour different technologies. Stakeholders also agree that UOMA has been successful in facilitating private industry's collection and recycling and reprocessing of used oil.

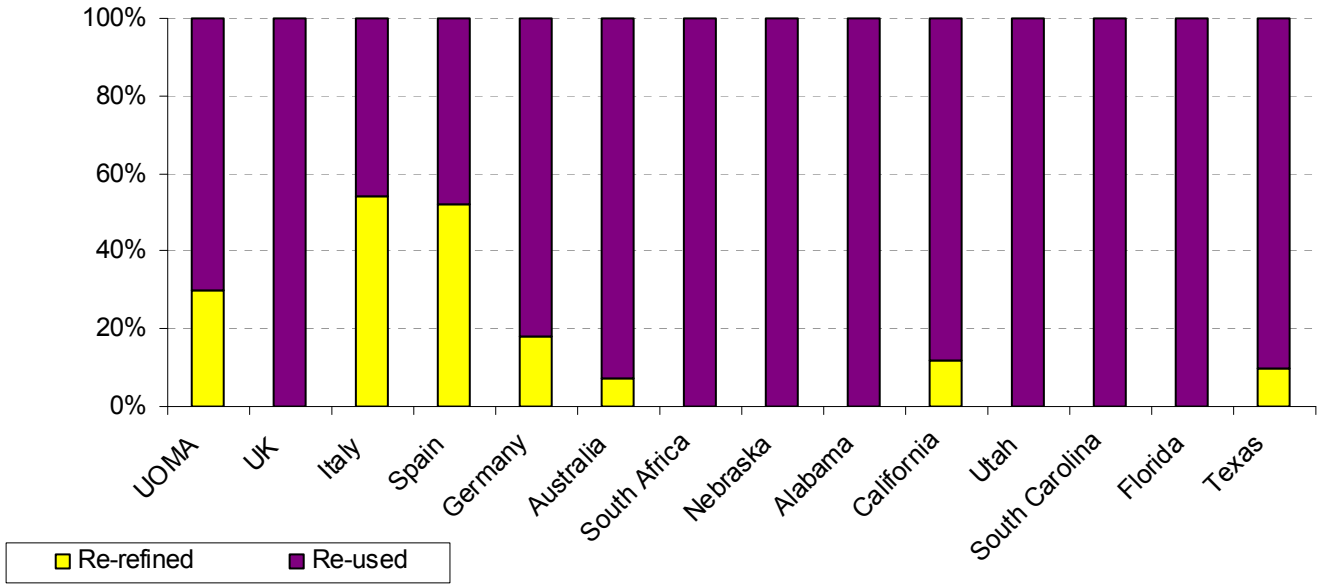
UOMA was found to have the second highest collection rates of benchmarked programs. About 38% of oil is used during use and is unrecoverable. Therefore, "percentage of collectable" is composed of 62% of total oil sales. Programs either focus on collection or re-refining. Programs with policies favouring the collection of used oil and related materials appear to have *high* collection rates and *low* re-refining rates. The purpose of the UK program is to maximize collection rates. The program collected 76% of used oil collectable. On the other hand, programs with policies favouring the re-refining of used oils and related materials appear to have *low* collection rates and *high* re-refining rates. Italy's policy requires that a minimum of 90% of collected used oil be re-refined. The program collects about 53% of used oil collectable. Exhibit 1-3 illustrates program collection rates.

Exhibit 1-3
Percentages of Collection – Net and Gross



The allocation of used oil between re-refining and re-use is illustrated in exhibit 1-4. Since UOMA's focus is on collection rather than end use, re-refining 30% of used oil collected is outstanding compared to programs with the same focus. Contrary to the statement that programs with policies favouring the collection of used oil and related materials appear to have *high* collection rates and *low* re-refining rates, UOMA appears to have both *high* collection rates and *high* re-refining rates.

Exhibit 1-4
Allocation – Used Oil



The most common ways that oil was re-used include:

- Burned for energy recovery
- Use in the production of asphalt for roads and highways.

Due to geographical factors, several programs have found unique uses for used oil:

- Florida – Phosphate beneficiation
- California – Bunker fuel for ships at sea
- South Africa – Explosives

1.4 COMPENSATION SCHEME

UOMA has a very unique compensation scheme compared to other programs. Generally, programs can be grouped into two categories – those providing incentives to collectors and those who do not. Most benchmarked programs are funded through the implementation of an Environmental Handling Charge (EHC). In the US, State Revenue agencies collect the funds and delegate them to the programs in several ways. In most cases, funds collected in an EHC manner appear to be directed to State general revenues with programs funded through grants or similar mechanisms (each state has a unique funding mechanism but they all generally operate in this manner).

Australia's program, Product Stewardship for Oil (PSO), is also funded through the implementation of an EHC. Collectors sell the oil to processors and the PSO program gives incentives to processors (rather than collectors) when they have finished working on the used oil and have sold it. Processors are paid an incentive that varies widely according to the amount of re-processing undertaken. Re-refining used oil into base equivalents generates an incentive payment of 47.4¢ per litre where as burning the oil for energy recovery generates a payment of 2.9¢ per litre. Although collectors are not directly given an incentive, it is probable that some of the incentives paid to processors flow through to collectors in the form of higher prices.

Several of the State programs are designed similar to UOMA in that they provide incentive payments to collectors. In contrast to UOMA, several State programs do not give incentives to collectors. Collectors sell the used oil to processors for 3.6¢ per litre. State programs that do not provide incentives to collectors appear to have lower collection rates, implying that a Return Incentive (RI) could be beneficial to used oil collection rates.

1.5 ENVIRONMENTAL HANDING CHARGE (EHC) AND RETURN INCENTIVE (RI) RATES

Stakeholders were asked about the EHC and RI in respect to:

- Used oil
- Oil filters
- Oil containers

Overall, all stakeholder groups were in agreement with current EHC and RI levels. The stakeholder group most affected by the EHC and RI are collectors and processors. When compared to the rest of the stakeholders, collectors and processors appear to be less in agreement that current EHC and RI rates are reasonable to sustain the used oil program. Furthermore, collectors and processors were in more agreement that a higher percentage of EHC's should flow to collectors and RI's.

In regards to the three used oil materials, there was reasonable acceptance of oil and filter RI's for collectors and processors. Most collectors and processors feel container scope is too narrow and the RI is too low. With respect to oil filter RI's, collectors commented, "There are far too many sizes of filters to be lumped into two categories" and expressed a concern about equal pay for automotive and industrial filters with considerably different weights.

In areas that benchmarked programs operate, there is an EHC per liter of oil sold. UOMA's EHC of 5¢ per liter of oil sold is slightly higher than the North American average (4.5¢), and significantly lower than the average for all benchmarked programs (14.8¢). The European programs were found to have very high EHC's, which appear to reflect both higher costs associated with re-refining used oils as well as higher program administration costs.

Of fourteen programs benchmarked, four provided return incentives to collectors, six let market forces dictate the price collectors receive, one (Australia) gives incentives to processors (refer to section 6.4), and three did not provide a response. UOMA's RI varies from 8-17¢ per liter based on the area that the used oil is collected. Compared to other programs, UOMA has a higher RI. The UK has an RI of 6¢ and two State programs have RI's of 5.2¢. In the areas where used oil is sold to processors, collectors received 3.6¢ per liter in the US and 7¢ per liter in Italy.

1.6 UOMA MANAGEMENT

Overall, UOMA stakeholders had positive comments regarding interactions with UOMA's management and administrative staff. Collectors and processors had positive comments regarding interactions with UOMA's management and administrative staff. Through the general comments, there appears to be a desire for increased collector and processor representation on the board from this group. Some collectors and processors felt that, given their hands-on experience, their increased presence would help to guide UOMA and incorporate a broader scope of stakeholder interest in the future direction of the association.

The survey of Western Canadian public found that the 63% of respondents that had heard about the used oil management association. Of these respondents, 79% were satisfied about the management of used oil in their provinces.

1.7 OVERALL UOMA RESULTS

UOMA appears to be a world leading used oil management program. Stakeholders strongly agree that UOMA has increased used oil material collection rates in Western Canada, increased their awareness on the importance of used oil recovery in an environmentally safe way, and agree that they understand their role in achieving and maintaining these impressive results. The majority of stakeholders support the program status quo versus the long-term goal of program self-sufficiency and support the program's economics. Public behaviours are also changing and more people are now recycling their used oil materials—this is confirmed through UOMA's growing collection rates. Finally, UOMA's results are corroborated through benchmarking other leading used oil management programs in North America and Europe—UOMA is currently realizing both extremely high collection rates and low program costs.

2 INTRODUCTION

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The used oil recycling associations serving Western Canada, titled the Used Oil Management Association (UOMA), consists of a number of separate provincial entities. BCUOMA (British Columbia Used Oil Management Association), AUOMA (Alberta Used Oil Management Association), SARRC (Saskatchewan Association for Resource Recovery Corporation), and MARRC (Manitoba Association for Resource Recovery Corporation) are not-for-profit organizations, with a membership open to all wholesale suppliers (first sellers) of oil materials in their respective provinces. A multi-stakeholder Board of Directors manages each provincial association along with representatives from industry and government.

More than 30 organizations representing the oil industry, automotive industry, retailers, consumers, recycling associations, environmental groups and government departments form the stakeholders group, which has been involved in and continues to support the implementation of each provincial program - including the Western Canadian Used Oil/Container/Filter Task Force.

There are four major groups of stakeholders across Western Canada. The first consists of collectors and processors, who receive a Return Incentive (RI) for their activities. There are approximately 115 organizations in this group, including 12 large volume organizations. The second group is composed of the approximately 225 suppliers that sell oil and oil filters, and thus remit the Environmental Handling Charge (EHC) to the UOMA organizations. In addition, there are 37 board members combined across the four provinces and there are approximately 20 associations involved in the recycling industry exhibiting variable involvement with the UOMA program.

BearingPoint has been engaged to assist UOMA in conducting a program review involving a survey of program stakeholders along with a benchmarking exercise of comparable programs. UOMA's principles, purpose, goals, management and results are to be reviewed from both a provincial stakeholder perspective as well as compared against other provincial programs.

2.1 APPROACH AND METHODOLOGY

The program review was conducted through a four-phase approach. The phases include project initiation, stakeholder surveys and interviews, public surveys, program benchmarking initiative and development of a final report.

2.1.1 PHASE ONE—PROJECT INITIATION

Project initiation is where the project charter was finalized detailing the project objectives, work plan, deliverables, timing and logistics. The survey and interview protocols for the stakeholder groups along with an outline of the benchmarking initiative were developed. The public survey approach, methodology and questions were also developed. The Project Charter is attached in Appendix A, the stakeholder survey is attached in Appendix B, and the stakeholder interview protocol is attached in Appendix C for reference.

2.1.2 PHASE TWO—STAKEHOLDER SURVEY AND INTERVIEW, PUBLIC SURVEY

The stakeholder survey and interviews comprise the second phase of the project. A survey website was developed and the survey was conducted through the Internet with an optional hardcopy available for stakeholders. Further, a

total of 36 stakeholders spanning each provincial association and representing each stakeholder group were randomly selected for detailed interviews.

Criterion Surveys conducted a Western-Canada-wide survey of the public. The public survey is attached in Appendix D.

The results of the survey and interviews were consolidated into a spreadsheet format and analyzed using the evaluation methodology developed in Phase One.

2.1.3 PHASE THREE—BENCHMARK COMPARABLE PROGRAMS

Overall, the project objective is to identify a number of comparable petroleum recycling programs, with a focus in North America, to compare to the Used Oil Management Association (UOMA). The focus of the benchmark is on overall program strategy, program process and structure, and on the program results compared to the mandate of each respective program.

Upon commencement of the project, research was conducted to find willing and comparable participants. Specific program elements were chosen to ensure an unbiased comparison. Data was collected through use of reports, websites, and e-mail and telephone contact and was entered into a custom database for entry, consolidation, and analysis. Data was analyzed to find similarities and contrasts between participants and the Used Oil Management Association.

2.1.4 PHASE FOUR—DEVELOP FINAL REPORT

The final project phase consisted of consolidating and analyzing of the findings the surveys, interviews and benchmarking. The results of the surveys and interviews in Phase Two were combined based upon the evaluation methodology and the findings of Phase Three. The result was an overall identification and analysis of the strengths, weaknesses, opportunities and challenges of your program.

3 INTRODUCTION TO USED OIL

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3.1 WHAT IS USED OIL?

When crude or synthetic oils are refined, they become known as base oils that are blended with additives to form lubricating oils. During use these lubricating oils become contaminated with a variety of chemical and physical impurities. After use, lubricating oils are then referred to as "used oil". The term "used oil" typically refers to used or contaminated lubricating oils, which are collected from oil change shops, garages, and numerous other residential, commercial and industry sources.

3.2 RECYCLING USED OIL MATERIALS

Used oil can have a tremendous impact on the environment – one litre of used oil can contaminate up to one million litres of fresh water. Cleaning oil spills may cost $1.30-$1.40 per litre of spilled oil or more. UOMA estimates that every year about 307 million litres of new oil are sold in Western Canada. It is estimated that around 38% of the oil is consumed during use, leaving roughly 190 million litres of oil available for collection and recycling. If these oils were to reach fresh water supplies, cleaning costs would range upwards of $250 million. Used oils also contain small quantities of numerous substances that may contaminate the air, soil and groundwater. Therefore, if unmanaged, used oil has the potential to be an extremely costly environmental impact.

There are two main methods for end use of used oils – re-refining and reprocessing/re-engineering. When properly collected, most used oil can be used again. Upon collection, used oil is typically tested for contaminants and impurities. Used oils with low levels of contaminants are suitable for re-refining while used oils with higher levels of contaminants and impurities are re-used in other ways.

Used oil is not the only oil material that can be recycled. Used oil filters and oil containers still contain oil and are recycled for the same reasons mentioned above. Similar to used oil, they are typically collected concurrently with used oils and processed accordingly.

There are several methods to recycle oil filters. In UOMA, filters are shredded or crushed to remove all remaining used oil, and sent to steel mills for processing. The metals are re-used as material for other metal products such as rebar, nails and wire. Other programs use waste-to-energy (WTE) facilities to burn the oil within the filter for energy recovery. Afterwards, the metal casting is recycled. Several US state programs follow the regulations put forth by the Environmental Protection Agency (EPA): puncture and hot drain the filters then throw them in the dumpster.

There are also several methods to recycle oil containers in an environmentally sound manner. Most containers are made out of plastic. They are shredded and washed to recover the majority of the used oil. Afterwards, the plastic can be palletized and used in the production of many products including new lubricating oil containers. Some containers are shredded and sold to plastic lumber companies that encapsulate any remaining oil in the lumber. The underlying concept behind this method is that the oil must be fully encapsulated so it does not seep into the environment over time.

3.3 USED OIL END USES

In general, there are two main methods of end use for used oils – re-refining and combustion (re-processing or re-engineering). Each method of end use is unique and has been carefully examined by both the Organization for Economic Cooperation (OECD) and the European Petroleum Industry Association (EUROPIA). The following section is based on the OECD report "Improving Markets for Secondary Materials: Case Study Report on Used Oils" (2004), and EUROPIA's report "EUROPIA Used Oil Position" (2004). Both reports stress that there is no "right answer" for the appropriate end use for used oil.

Government policies directly affect the ways used oil is collected and recycled. On one hand, governments similar to the United Kingdom strongly encourage the collection of used oil, but do not specify a specific method of recycling or re-use. This policy results in a significant proportion of used oil collected being burned for energy recovery. On the other hand, Governments similar to Italy have legislated that a minimum of 90 % of collected used oil go to re-refineries and a maximum of 10 % go to re-processors. As a result, collection rates in Italy are relatively low, but of the oil collected, a high percentage is re-refined.

The European Petroleum Industry Association (EUROPIA) supports programs that encourage used oil collection, but does not support the mandated or legally enforced priority of any specific recycling method. EUROPIA believes that the safe, environmentally friendly and energy sustainable recycling of used oils in a cost effective manner can be achieved without special subsidies or market measures.

There is a trade off faced when deciding what type of policy to choose. Policies favoring collection appear to have relatively high collection rates, but relatively low re-refining rates. Conversely, policies favoring re-refining appear to have relatively low collection rates, but relatively high re-refining rates.

In order to understand EUROPIA's position in it's report, it is important to understand the circumstances surrounding it. Current European Union (EU) directives regulating used oil management encourage effective collection followed by re-refining. These directives were created in 1985 and were amended in 1987. EUROPIA believes that the optimum recycling method for used oil changes with time and location. Pertinent considerations include:

- Environmental regulations.
- Differences in standards.
- Used oil composition (i.e. base stocks, additives, and contaminants).
- Entirely new recycling methods.
- Increased technological effectiveness of current recycling methods.
- Economics affecting the relative attractiveness of various recycling options.

3.3.1 RE-REFINING

Re-refining of used oils occurs when used oil is processed into base oil equivalents. Oil is a non-renewable resource that is very high in demand. The OECD report concluded that although the demand for oil in developed countries has slightly decreased while world demand remains constant due to the growing demand in developing countries (such as China). Current world demand totals roughly 40 billion liters per year and 23% of this demand originates in North America. There is a general consensus that current oil reserves will last for 40-50 years. Re-refining used oils has the potential to significantly extend the lifespan of oil reserves.

As of 2005, there are four used oil re-refineries in North America. According to the OECD, there are significant barriers to entering this market. The barriers to entry include:

- A minimum efficient scale of 68.5 million liters per year
- Reduction in base oil prices can undermine plant profitability
- Post re-refining tests can be very costly
- Frequent changes to engine oil standards (accounting for 55% of world oil demand)

The main concerns for re-refiners come from buyer risk aversion and technological externalities. Buyers of base oils blend base oils with additive packages to achieve higher or more specific levels of performance. The OECD report found that buyers of these oils are extremely sensitive to the risk of using materials that may cause their products harm or to fail. As a result, they have become risk averse about re-refined oils. The OECD report concluded that the risk aversion could persist for a considerable amount of time even if the technical feasibility and equivalency of re-refined oils was established.

A wide variety of additives are blended with base oils to produce lubricating oils. These additives are not only more harmful to the environment, but create difficulties for re-refiners. The most problematic additives for re-refiners are lead, chlorinated hydrocarbons and dithiocarbamates, polysulphides, and suphur compounds. According to the OECD report, the cost and energy needed to re-refine used oil with these additives is very high. EUROPIA believes that if there are high levels of contaminants and impurities, re-refining the oil to base equivalents become energy intensive.

3.3.2 REPROCESSING/RE-ENGINEERING

There are a variety of methods used to reprocess or re-engineer used oil. Reprocessing involves a lesser degree of processing than re-refining. Examples of reprocessing include processing used oil so it can be burned for energy recovery, used as drilling oil, or in asphalt for roads and highways. Re-engineering occurs when new uses are found for used oil. The main method for re-use in reprocessing or re-engineering is combustion.

According to EUROPIA, current EU directives do not recognize the use of used oil as a fuel and miss the opportunity to deal effectively with pollutants released during re-refining. EUROPIA's study found that the environmentally sound burning of used oils is at least as attractive in terms of energy and crude oil savings as regeneration to re-refined base oils. Unless used oils are unusually contaminated, they can be incinerated for energy recovery. Due to the higher carbon ratio of used oils, replacement of coal or petroleum coke as a fuel in power plants or cement kilns reduces the emissions of carbon dioxide by about 30%.

A study undertaken in California by Boughton and Horvath (2004) compared the impacts from re-refining used oil, distillation into marine diesel oil, and burning untreated used oil for space heating. The study concluded that the impacts with respect to air and water pollution emissions and generation of solid waste are approximately equal, but the emissions of heavy metals are much more severe for burning. However, space heaters do not have built in air emission controls.

In general, studies by the OECD and EUROPIA indicate that the environmental and energy benefits between combustion and re-refining are well balanced. The most significant environmental impacts are associated with illegal disposal and choosing either method is a better alternative to not choosing one at all.

4 STAKEHOLDER SURVEY AND INTERVIEW RESULTS

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4.1 OVERVIEW

The 24-question stakeholder survey and interviews make up a significant portion the second phase of the project. The balance of this phase consisted of a public survey conducted across Western Canada. A stakeholder list composed of 396 organizations representing Board Members, Suppliers, Collectors/Processors and interested Associations across the four provinces was developed (as found in Appendix E). A stakeholder survey website was developed and the survey was conducted through the Internet with a hardcopy option for those who preferred it.

4.1.1 PARTICIPATION AND RESPONSE RATES

The survey was conducted throughout October and November of 2004. We received 119 responses from the 396 organizations that were invited to participate, representing a 30% response rate. This is a superior response rate and is considered to be statistically valid given adequate representation of all stakeholder groups as well as an acceptable sample within each province.

From this, a total of 36 stakeholders representative of each group were selected from each province for detailed interviews. We were ultimately able to conduct 30 interviews as several selected individuals and/or organizations were unable to participate due to conflicting timing and scheduling issues.

4.1.2 SURVEY AND INTERVIEW PROTOCOL DESIGN

The survey was presented with 24 questions designed to gain insight into five categories of program performance - principles, purpose, goals, management and results.

4.1.2.1 Principles

The Principles section sought to collect stakeholder opinions regarding the general importance of used oil collection and recycling, exploring more universal elements of recycling program values. In the survey format, this section included statements A through F inclusively.

A. Used oil and related materials should be collected and removed from the waste stream.

B. Used oil and related materials, once collected, should be reprocessed or recycled.

C. Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

D. Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

E. All used oil material collected should be delivered to a government-approved reprocessor or recycler.

F. Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

4.1.2.2 Purpose

The Purpose section examines UOMA's overall role, measuring the perceived importance of and agreement regarding the function of the organization. These statements address issues of UOMA focus and membership participation.

G. UOMA's primary focus should be on the collection of used oil materials from the waste stream.

H. I understand that my participation in UOMA activities helps the organizations' achieve used oil material recovery in Western Canada.

4.1.2.3 Goals

The Goals section addresses UOMA goals and measures stakeholder opinion on issues of program spending and overall program objectives. In the survey format, this section included statements I through M inclusively.

I. UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

J. UOMA should ensure the administration of programs is performed in a cost effective manner.

K. A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

L. The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

M. UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

4.1.2.4 Management

The Management section sought to determine areas of strength and weakness in regards to vital aspects of the UOMA administration. These statements address issues of fairness, consistency, satisfaction, and current Environmental Handling Charge (EHC) and Return Incentive (RI) rates. In the survey format, this section included statements N through U inclusively.

N. Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

O. On the whole, my experience with UOMA administrative staff has been positive.

P. UOMA appears to be fair and consistent in its administration of the used oil management program.

Q. A board that incorporates stakeholders' interests directs UOMA's operations.

R. It is clear how I can communicate my concerns with UOMA.

S. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

T. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

U. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

4.1.2.5 Results

The Results section examines stakeholder opinion regarding the achievement of current program outcomes and accomplishments. These statements address issues of program effectiveness concerning increased awareness and improved collections of used oil materials in Western Canada. In the survey format, this section included statements V through X inclusively.

V. Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

W. UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

X. Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

4.1.3 RATING SCALE

Each statement in the survey was measured on two dimensions using a 5-point rating scale. The first was whether the respondent found the statement and it's fundamental issue to be of importance to them. This served to determine the topic relevance to the individual. The second factor was their level of agreement or disagreement with the statement, which was used to determine their actual opinion on the matter.

This method was used to identify significant discrepancies between what issues stakeholders perceived to be relevant and their corresponding opinions - which subsequently served to identify priority areas of program improvement. For example, an area of dissatisfaction is of more concern in instances where it is determined to be highly important to stakeholders as opposed to areas of lesser importance.

In regards to the actual rating, both importance and agreement were measured on a scale of 1 through 5. For importance, the values were coded as follows:

1. Not at all important
2. Somewhat unimportant
3. Neither unimportant nor important (neutral)
4. Somewhat important
5. Extremely important

For agreement, the responses were coded as follows:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree (neutral)
4. Agree
5. Strongly agree

4.2 SURVEY RESULTS

Upon analyzing the 24-question survey results, there are a number of overall findings that are important to highlight. As mentioned above, the response rate of 30% (119 respondents) is on target with the industry average for online survey administration[1]. This would suggest that UOMA stakeholders appreciate the opportunity to participate in the program review and were willing to contribute valuable feedback and suggestions in an effort to improve the program. With these significant participation rates, we were able to obtain a representative sample of all stakeholder groups across all four Western provinces. Such figures give us confidence in the responses and the subsequent analysis.

We begin by examining the aggregate Importance and Agreement ratings, comparing responses provided by the 4 stakeholder groups. In analyzing the following exhibits, each line in the radiograph represents a corresponding stakeholder group:

- Stakeholder Associations are represented in navy.
- Board Members are represented in pink.
- Collectors/Processors are represented in green.
- Suppliers are represented in blue.

The rating scales, as represented by the 5 circles expanding outward, are as noted in Section 3.1.3 above. The numerous axis, labeled A through X, represent the 24 survey statements referenced in Section 3.1.2 above or in Appendix B.

[1] SuperSurvey "Online Survey Response Rates and Times: Background and Guidance for Industry". http://www.supersurvey.com/papers/supersurvey_white_paper_reponse_rates.pdf

Exhibit 4.1
UOMA Importance Ratings by Group

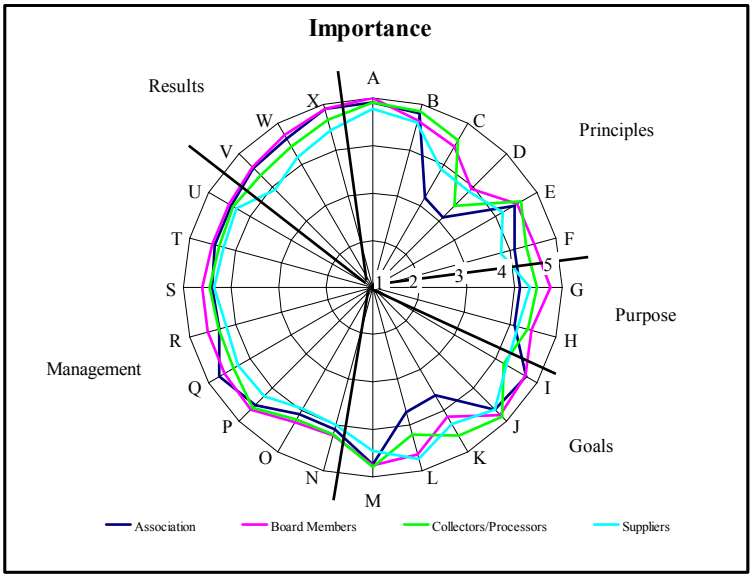
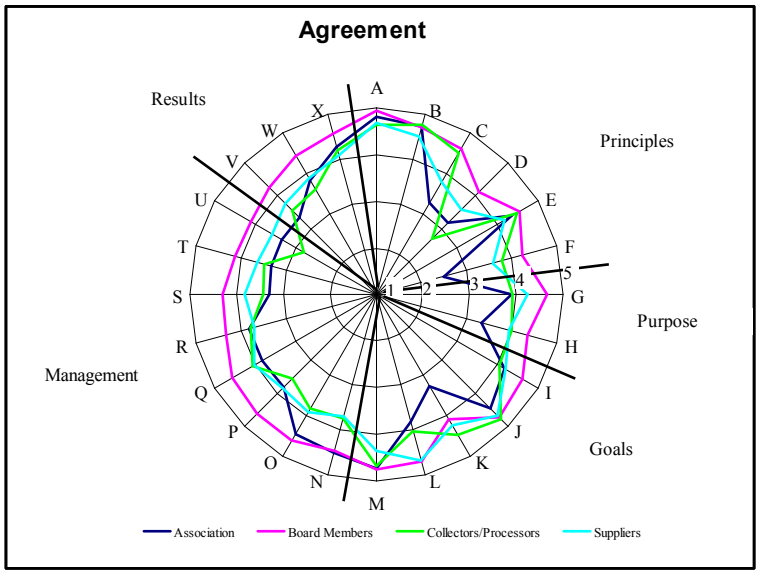


Exhibit 4.2
UOMA Agreement Ratings by Group



These figures provide a general comparison of the responses by stakeholder group on the two measured dimensions. Overall, the results obtained are very positive. In aggregate, the majority of responses are well above the neutrality threshold of 3, indicating satisfaction with the program. It is evident that the statements examined relatively important issues and that there was a respectable level of consensus across the groups.

That being said, at this level of detail we are able to see that the two main areas of interest are largely that of:

- Private industry self-sufficiency without program support (Statement D), and;
- Current Environmental Handling Charges (EHC) and Return Incentives (RI) rates (Statements S, T, U).

These topics will be investigated in greater detail in the following section.

4.2.1 FINDINGS BY CATEGORY

4.2.1.1 Principles

Overall, program principles appear to be in line with stakeholder values and all stakeholders strongly agree that there is a need for collection and recycling of used oil and related materials. That being said, there were some details that raised difference of opinion in this matter.

Statement C. Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

This question assumes that private industry will operate under government regulation. Overall, Associations were more neutral toward this statement as compared to other stakeholder groups, which tended toward general agreement. Support was accompanied with comments in respect to responsibility and increased effectiveness with industry participation.

Statement D. Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

This statement produced notable division among stakeholder groups, with Board Members tending toward agreement and Collector/Processors (and a number of stakeholder Associations) showing less agreement.

As a group, Collectors/Processor were highly variable with respect to their importance ratings of this issue - ranging from 1 to 5 and thus settling in a position of neutrality and of moderate importance. Based upon comments collected, it appears to be the case that Collectors/Processors are generally satisfied with the current program and feel that an effective recycling program will always need the support of UOMA.

As an aside, there was also great support for industry self-sufficiency with a general sentiment that, “with proper guidance and regulations, the self-sufficiency of private industry is the right long-term goal”.

Statement E. All used oil material collected should be delivered to a government-approved reprocessor or recycler.

Responses indicate consensus for the need of administrative approval, although a number of stakeholders indicated thoughts that the respective provincial associations should be the ones responsible for granting approval given that “the government doesn't have enough bodies to monitor this industry”. Overall support for approval activities suggested that, “if there were no licensing and control, then recycling could become hazardous.”

Statement F. Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

Though all groups rated this as an issue of importance, there was evident variability in regards to their levels of agreement. Overall, Board Members and Suppliers were aligned, stating that "the fair market will determine what technologies become dominant" and warned that playing favorites will result in a drop in participation.

Less agreement was illustrated from a small sample of Collectors/Processors, who contended, "any technologies that are better for the overall health of the environment should be given a higher RI". Operating cost was also brought up, with claims that it is "difficult to have Return Incentives on the same pay scale when it costs different amounts to reprocess".

4.2.1.2 Purpose

With regards to the purpose of the program, there is strong general consensus on the importance of and support towards the UOMA function.

4.2.1.3 Goals

Overall there is concensus on both the importance and agreement ratings within groups as well as among groups for this set of statements.

Statement K. A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

Although there is overall strong agreement, responses from stakeholder Associations did depart from the other groups. Given their neutral ratings of importance and agreement, this isn't to say that Associations don't support Collectors but that they may have an interest in having funds diverted to other uses such as public education.

In general, the comments received expressed support in the feeling that the success of the program relies on collectors and that RI's should serve to compensate for these activities (including increasing operational costs).

Statement L. The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

Stakeholders felt that this was a strong idea given that "one set of rules is better than four" and "consistency and integration across provinces will result in shared costs and shared ideas".

That being said, some Associations and Collectors/Processors commented on the need to bear-in-mind the different provincial tax systems, fuel prices, and economies.

4.2.1.4 Management

As indicated by high importance ratings, the issues contained in the Management section of the survey are of great significance to all stakeholders. Overall, this section of the survey indicates that UOMA is doing a good job of meeting stakeholder expectations on a variety of administrative issues. The area of most interest is largely that of EHC's and RI's for oil filters and containers (Statements S,T, and U).

Statement S. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

Statement T. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

Statement U. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Taking into account the roles and motivations of each stakeholder group, there was a relatively variable response to current oil filter EHC levels. Some commented that they felt filter EHC's are too high relative to associated RI's, resulting in a degree of subsidization of used oil – "which is not aligned with program principles". On the other hand, other respondents claimed that because "the EHC on filters is on a per unit basis and the Return Incentive is on a per Kg basis", it has created a situation where the EHC's are not generating an adequate recovery of the Return Incentive.

Additionally, it is interesting to note less agreement for statement U, regarding rates for used oil containers, by Collectors/Processor than the other groups. In general, consensus of Collectors/Processors across all provinces stated that the management of empty oil containers is highly time and space consuming, and, as such, were concerned that the Return Incentives don't compensate for this.

4.2.1.5 Results

As with the above Management section, all stakeholders reported a high degree of importance with respect to these issues. Overall, the responses were positive - demonstrating stakeholder confidence that UOMA is in fact improving the collection and recycling of used oil in Western Canada.

Statement V. Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

General consensus is that awareness of used oil recovery is satisfactory but stakeholders emphasize the need to continue to educate and re-educate, especially the general public.

Statement W. UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

Similar to the above, all stakeholder groups are satisfied with respect to overall UOMA effectiveness. Some general comments noted at this time related back to other elements of the survey including public education and Return Incentive rates.

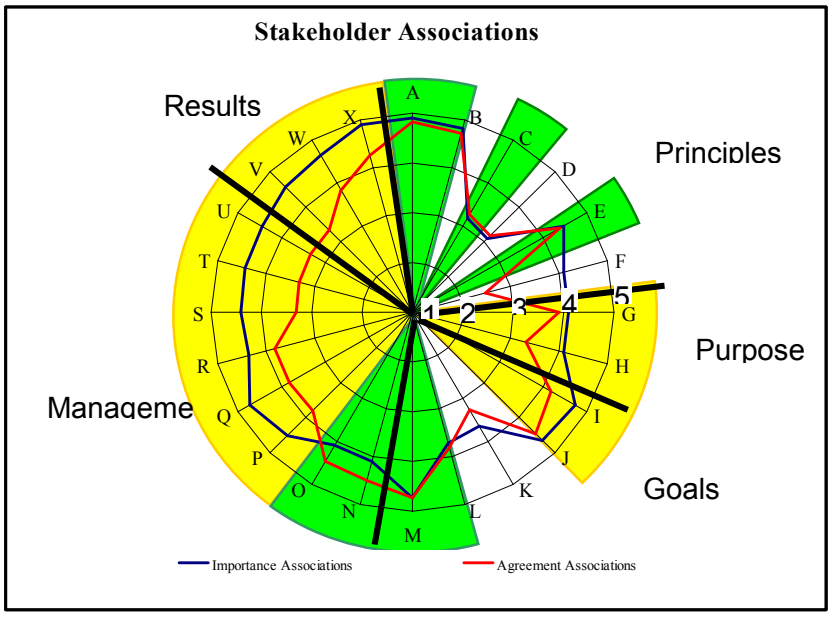
4.2.2 FINDINGS BY SURVEY GROUP

Following the above analysis of survey responses by category, we are in a position to examine the group results in further detail. Plotting the Importance ratings along with the Agreement ratings by group, we are able to determine areas where UOMA is currently meeting expectations and identify subjects for further examination.

Areas highlighted in yellow are places of interest whereas green emphasis indicates areas of significant alignment.

4.2.2.1 Stakeholder Associations

Exhibit 4.3
UOMA Survey by Stakeholder Associations – Importance vs. Agreement Ratings



Overall, stakeholders Associations expressed satisfaction with the program and place the most emphasis in areas of Management and Results. They are especially pleased with their interactions with the UOMA organization (statements N and O). Areas of interest with respect to this group are observed as:

- Stakeholder Associations are generally neutral in regards to private industry responsibility for collection and processing (Statement C). While some stakeholder Associations believe that UOMA is an essential component to integrated waste management and in all aspects of environmental protection, others believe that industry needs to take responsibility for the development and implementation of a used oil program and that the costs of the programs should not be paid for by the consumer through environmental handling charges.

- Stakeholder Associations are in less agreement regarding common payment rates for different reprocessing technologies (Statement F).

- Stakeholder Associations are less clear with respect to the understanding of their own participatory role in UOMA (Statement H). Some stakeholder Associations mention that they are never informed of UOMA activities and programs. They go on further to state that Stakeholders need to be copied about UOMA AGM information and, in particular, need to receive the annual audited financial statements prior to the AGM

- Stakeholder Associations are generally ambivalent about EHC amounts flowing to Collectors (Statement K)

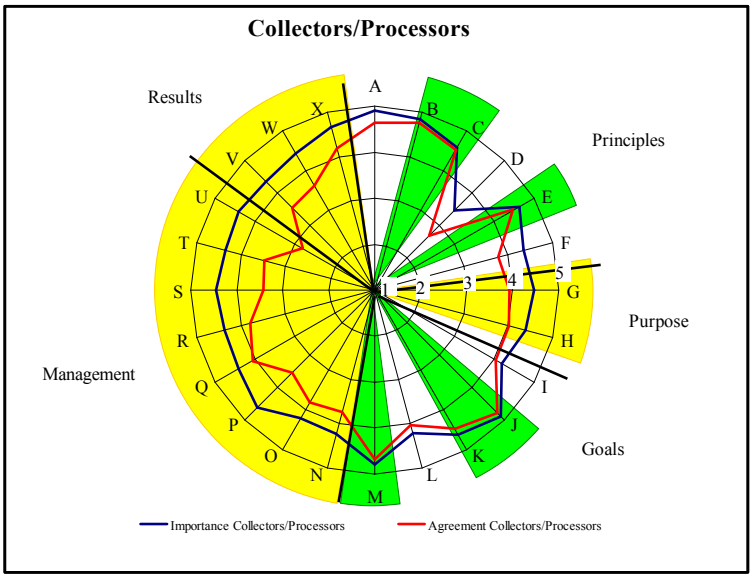
- Stakeholder Associations are less supportive of program harmonization across provinces (Statement L).

- Stakeholder Associations are in less agreement that current Environmental Handling Charges (EHC) and Return Incentives rates are reasonable to sustain the program (Statements S, T, U). That being said, this is an issue with which they have neither complete knowledge of nor a direct interest in.

- Stakeholder Associations are in less agreement with respect to UOMA increasing their awareness of the importance of used oil recycling activities (Statement V). This is largely consistent with Association comments emphasizing a desire for increased public education.

4.2.2.2 Collectors/Processors

Exhibit 4.4
UOMA Survey by Collectors/Processor – Importance vs. Agreement Ratings



Overall, Collectors/Processors expressed satisfaction with the program and place the most emphasis in areas of Management and Results. They are especially pleased with the overall Principles, Purpose, and Goals of the program. Areas of interest with respect to this group are observed as:

- Collectors/Processors are in less agreement with private industry self-sufficiency without program support (Statement D). From the comments collected, it appears to be the case that Collectors/Processors are generally satisfied with the current program and feel that an effective recycling program will always need the support of UOMA.

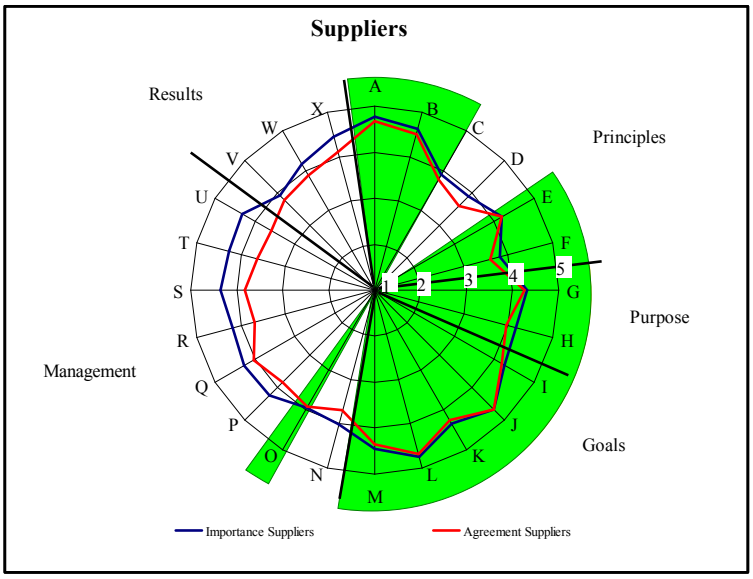
- Collectors/Processors agreed that a higher percentage of EHC's should flow to collectors as RI's (Statement K).

- From the general comments, members seek assurance that the program is operated in a fair and consistent manner such that all members are being held accountable and following the same guidelines (Statement P).

- Collectors/Processors are in less agreement that current Environmental Handling Charges (EHC) and Return Incentives rates are reasonable to sustain the program (Statements S, T, U). This is most significantly noted for Statement U, with respect to used oil containers.

4.2.2.3 Suppliers

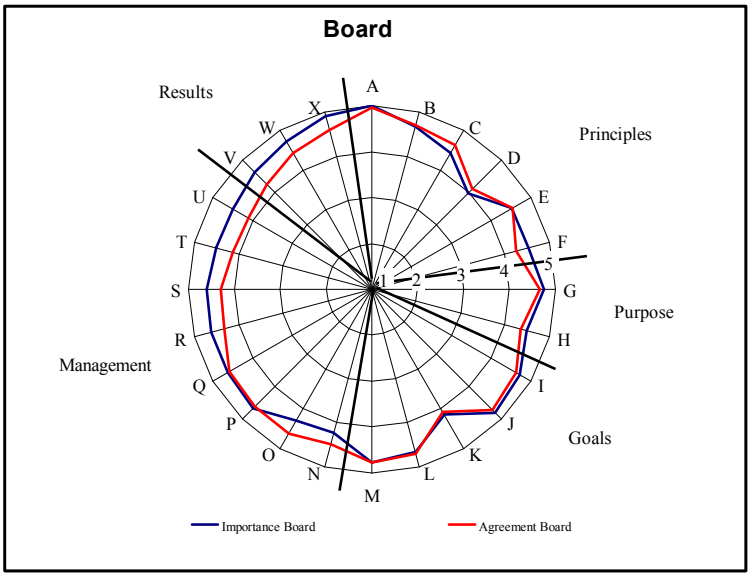
Exhibit 4.5
UOMA Survey by Suppliers – Importance vs. Agreement Ratings



In general, Suppliers are pleased with the program and feel that UOMA is meeting their expectations. This is especially true in regards to UOMA Principles, Purpose, and Goals. Like other stakeholders, the area of most interest to Suppliers is found in respect to Environmental Handling Charges (EHC) and Return Incentives rates (Statements S, T, U), though it may not be a direct concern for this group.

4.2.2.4 Board Members

Exhibit 4.6
UOMA Survey by Board Members – Importance vs. Agreement Ratings



Overall, Board Members expressed high satisfaction with the current UOMA operations. Areas of interest with respect to this group are observed as the program Management and Results, indicating a general desire to improve the efficiency, effectiveness, and performance of the organization.

4.2.3 FINDINGS BY PROVINCE

4.2.3.1 British Columbia - BCUOMA

Exhibit 4.6
BCUOMA Importance Ratings by Group

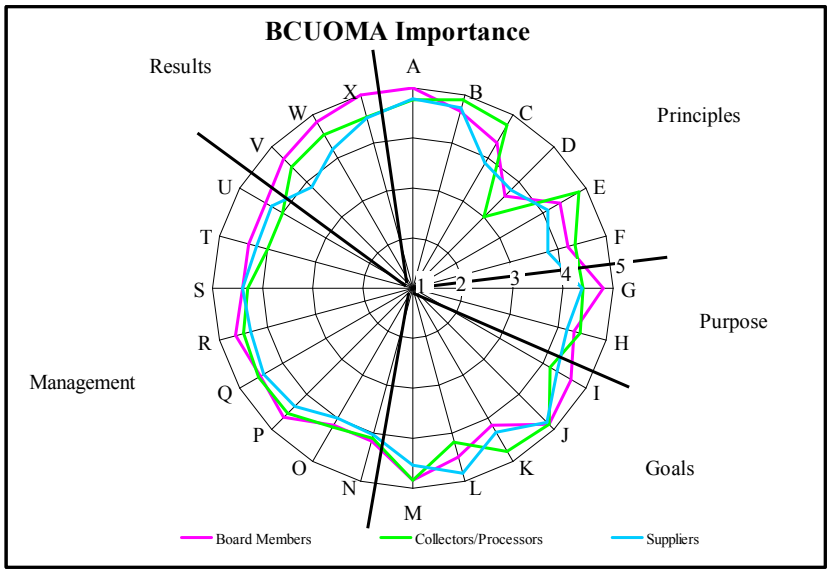
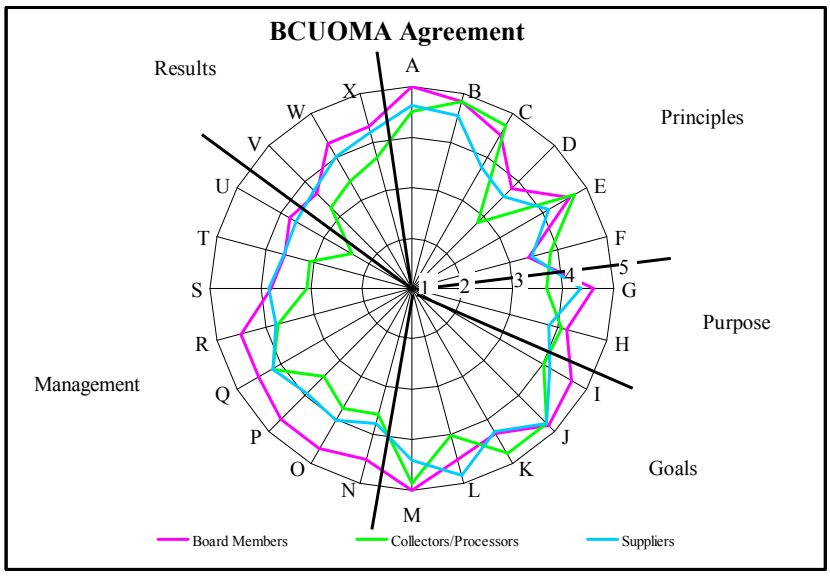


Exhibit 4.7
BCUOMA Agreement Ratings by Group



Note: Although the single responding BCUOMA stakeholder Association was included in the survey and analysis, this limited sample size caused extreme variation when examined at the Provincial level. Subsequently, the Association was removed from the following analysis.

Overall, BCUOMA members were highly satisfied with the program and their responses largely mirrored the strengths and weaknesses identified in the general analysis above. Provincial anomalies are observed as follows:

Principles

- Statement D. With a "neutral" rating, BCUOMA Board Members placed less importance upon and were in less agreement to private industry self-sufficiency than Board Members of other Provincial groups.

- Statement E. BCUOMA Collectors/Processors more strongly supported the idea that all used oil material collected should be delivered to a government-approved reprocessor or recycler. This is consistent with general concerns from BCUOMA respondents that used oil materials are properly managed in an environmentally sound manner.

- Statement F. Compared to other Provincial Boards, BCUOMA Board Members were in less agreement with the statement that Return Incentive rates paid should *not* favour different technologies.

Purpose

- No discernable difference between BCUOMA stakeholder responses and other provincial group response was observed.

Goals

- Statement I. Comments suggest that BCUOMA stakeholders support increased public education to build awareness of the relatively new program in that province.

- Statement K. As compared to Collectors/Processors of other Provinces, BCUOMA Collectors/Processors expressed stronger support for a high percentage of EHC's to flow through to Collectors. Coupled with the responses regarding Return Incentives (Statements S, T, and U), this may indicate an area to be further examined.

- Statement L. General BCUOMA comments express some hesitancy regarding cross-province alignments due to the "large economic differences between programs". The feeling is that administration consistency would in fact work but the EHC and RI rates would need to be set individually according to provincial requirements.

- Statement M. Although stakeholders of all Provinces agreed on UOMA continuing to work with partners to increase recovery rates, BCUOMA Collectors/Processors and Board Members displayed significantly stronger agreement with respect to this statement. This would indicate willingness to build stronger relationships within the relatively new program.

Management

- Statement Q. BCUOMA Collectors/Processors displayed stronger agreement toward the need for a board that incorporates stakeholders' interests, indicating their desire for increased representation on the Board throughout the general comments.

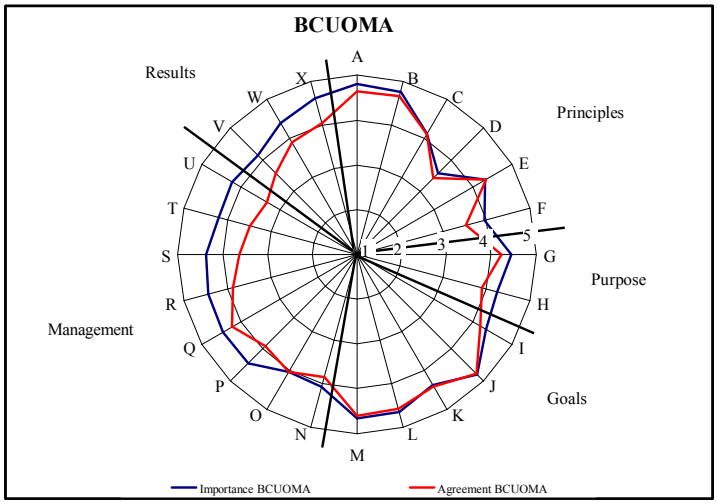
- Statement S, T, U. Both BCUOMA Board Members and Collectors/Processors were more dramatic in their responses regarding EHC and RI rates than other provincial groups. This may indicate an area to be further examined in BC.

Results

- Statement V. Both BCUOMA Board Members and Collectors/Processors reported less agreement with UOMA's effectiveness in increasing their awareness of the importance used oil recovery.

- Statement X. Similarly, both BCUOMA Board Members and Collectors/Processors expressed less agreement than their counterparts in other provinces regarding UOMA's effectiveness in improving the collection of used oil materials in Western Canada.

Exhibit 4.8
UOMA Survey by Province: BCUOMA Results – Importance vs. Agreement Ratings



BCUOMA is significantly meeting stakeholder expectations. The only area to examine appears to be the Environmental Handling Charges (EHC) and Return Incentives rates (statements S, T, U).

4.2.3.2 Alberta - AUOMA

Exhibit 4.9
AUOMA Importance Ratings by Group

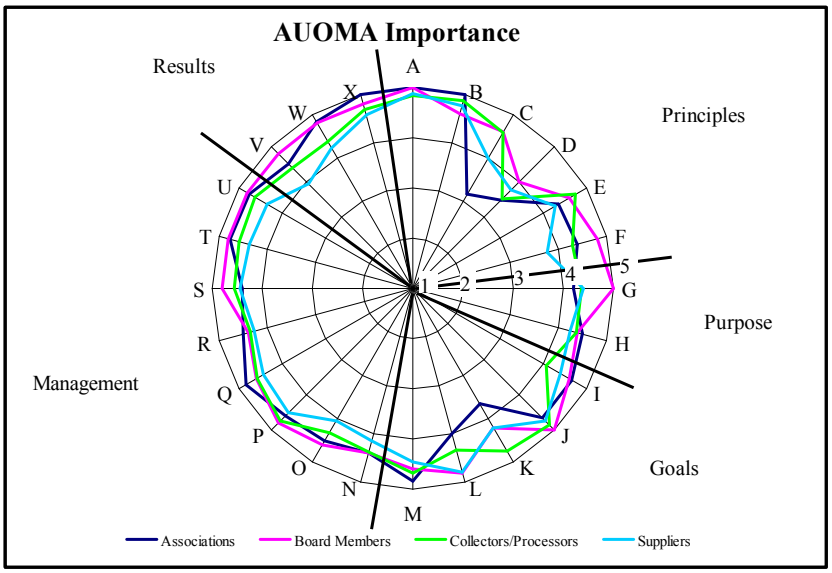
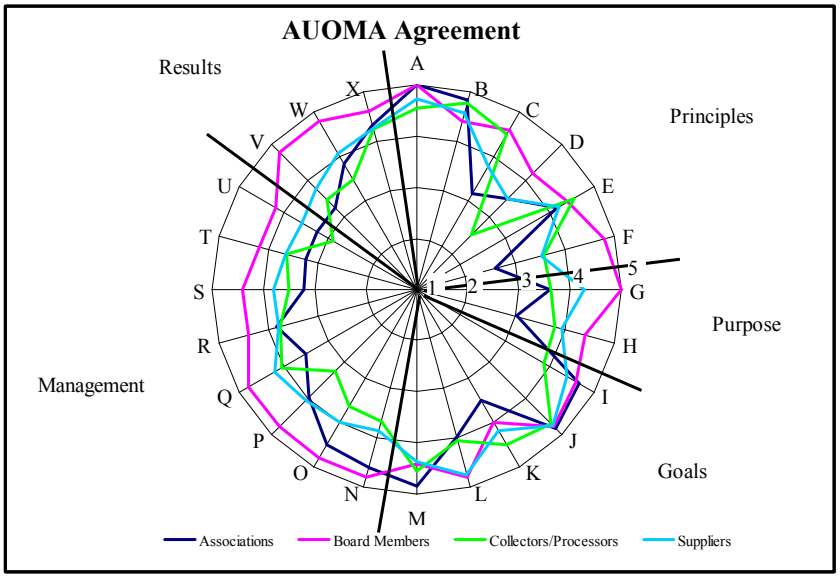


Exhibit 4.10
AUOMA Agreement Ratings by Group



Overall, AUOMA members were highly satisfied with the program and their responses largely mirrored the strengths and weaknesses identified in the general analysis above. Provincial anomalies are observed as follows:

Principles

- No discernable difference between AUOMA stakeholder responses and other provincial group response was observed.

Purpose

- Statement G. Compared to other provincial Associations, AUOMA stakeholder Associations were in less agreement to UOMA's primary focus being the collection of used oil materials. Some comments suggest a desire to expand program focus in areas such as stewardship, infrastructure, communication and awareness, and regulation and tracking.

Goals

- Statement L. AUOMA stakeholder Associations more strongly supported the idea that provincial used oil programs should work toward consistency with each other.

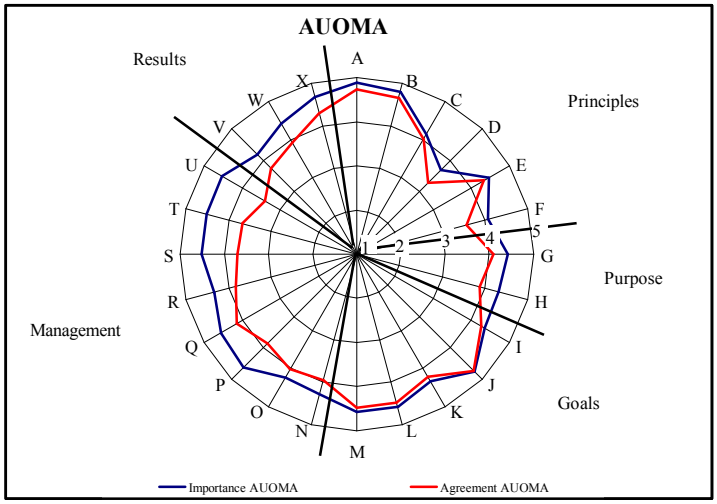
Management

- Statement N. Overall, there were a number of highly positive comments in regards to stakeholder interactions with UOMA administrative staff - stating that experiences have been "positive and professional."

Results

- No discernable difference between AUOMA stakeholder responses and other provincial group response was observed.

Exhibit 4.11
UOMA Survey by Province: AUOMA Results – Importance vs. Agreement Ratings



AUOMA is significantly meeting stakeholder expectations. The only area to examine appears to be the Environmental Handling Charges (EHC) and Return Incentives rates (statements S, T, U).

4.2.3.3 Saskatchewan - SARRC

Exhibit 4.12
SARRC Importance Ratings by Group

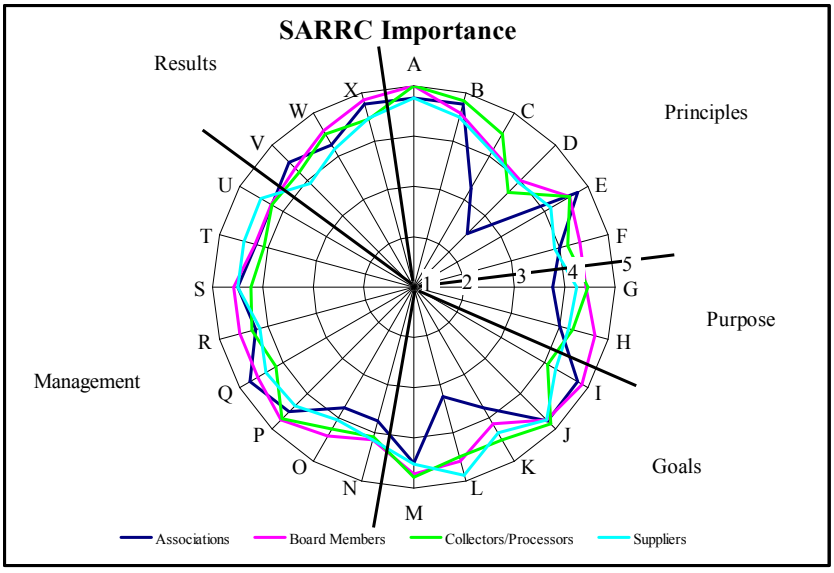
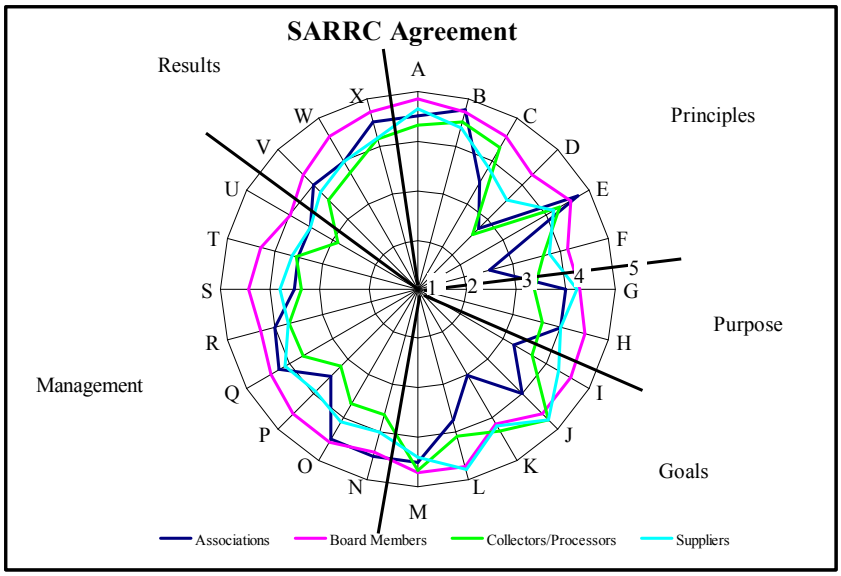


Exhibit 4.13
SARRC Agreement Ratings by Group



Overall, SARRC members were highly satisfied with the program and their responses largely mirrored the strengths and weaknesses identified in the general analysis above. Provincial anomalies are observed as follows:

Principles

- Statement D. Compared to a "neutral" rating by other provincial stakeholder Associations, SARRC Associations were in less agreement to the concept of private industry self-sufficiency. That being said, they also rated the issue as being somewhat unimportant and, as such, of little concern to them.

- Statement E. SARRC Associations strongly supported government-approved reprocessors or recyclers.

Purpose

- No discernable difference between SARRC stakeholder responses and other provincial group response was observed.

Goals

- Statement I. Rating the issue as highly important, SARRC Associations demonstrated less agreement toward making public education and information a priority.

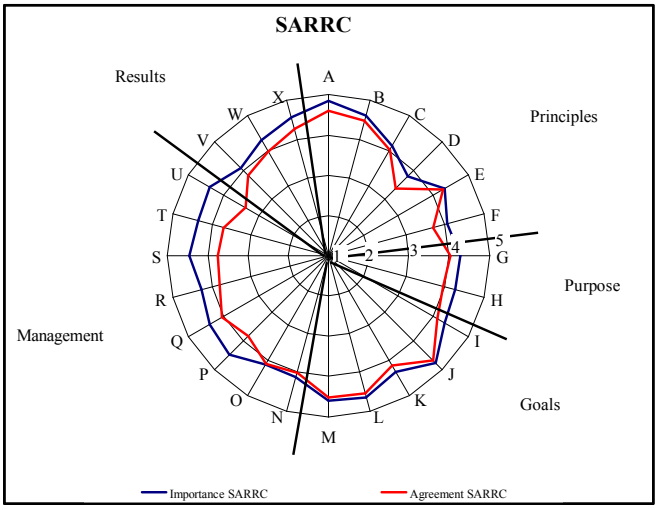
Management

- Statement N. Overall ratings were high with respect to satisfaction with interactions with UOMA administrative staff. SARRC Suppliers appear to be especially satisfied that their questions are adequately addressed.

Results

- No discernable difference between SARRC stakeholder responses and other provincial group response was observed.

Exhibit 4.14
UOMA Survey by Province: SARRC Results – Importance vs. Agreement Ratings



SARRC is strongly meeting stakeholder expectations. The only area to examine appears to be the Environmental Handling Charges (EHC) and Return Incentives rates (statements S, T, U).

4.2.3.4 Manitoba - MARRC

Exhibit 4.15
MARRC Importance Ratings by Group

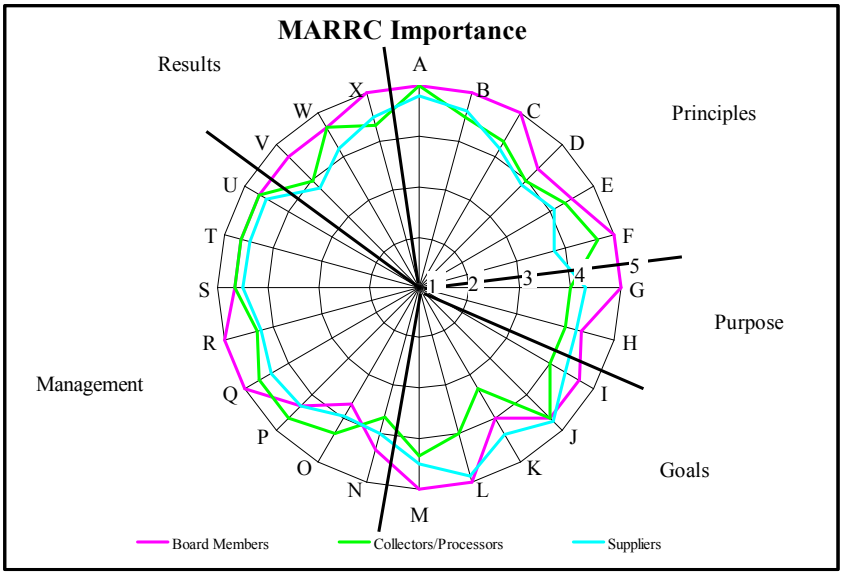
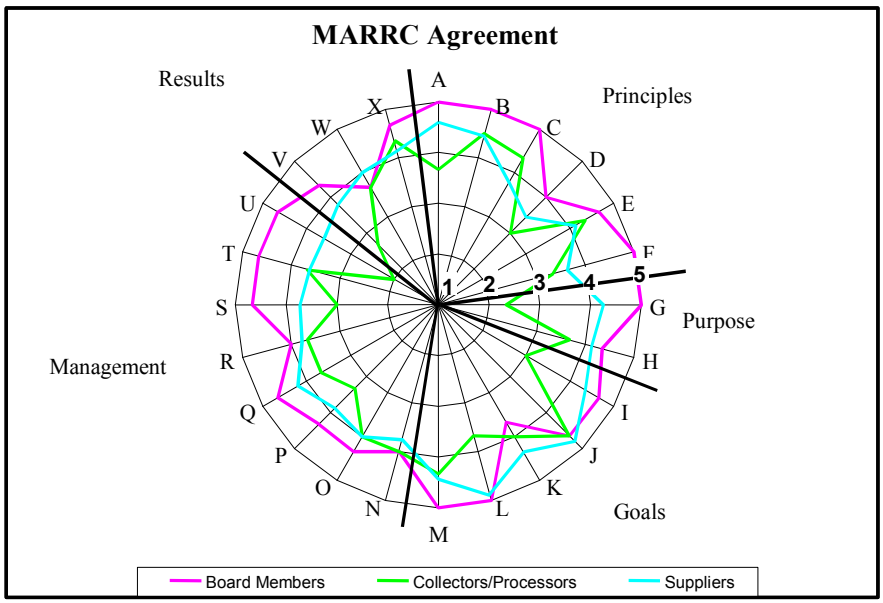


Exhibit 4.16
MARRC Agreement Ratings by Group



Overall, MARRC members were highly satisfied with the program and their responses largely mirrored the strengths and weaknesses identified in the general analysis above. Provincial anomalies are observed as follows:

Principles

- Statement C. Board Members in all provincial associations agreed with private industry responsibility for recycling activities. MARRC Board Members placed more importance upon and were in greater agreement to the concept.

- Statement D. With a high importance rating in regards to the issue of private industry self-sufficiency, MARRC Collectors/Processors were not as dramatic with their disagreement to this statement and gave a neutral rating.

Purpose

- Statement G. MARRC Collectors/Processors demonstrated less agreement toward the primary UOMA focus being the collection of used oil materials. Some comments suggest a desire to expand program focus in areas such as stewardship, infrastructure, communication and awareness, and regulation and tracking.

Goals

- Statement L. Although most stakeholders agreed with harmonization of provincial programs, MARRC Collectors/Processors demonstrated less support toward this direction.

Management

- Statements N & O. Ratings were generally positive regarding interactions with UOMA administrative staff. MARRC Collectors/Processor appears to be especially satisfied that their questions were adequately addressed.

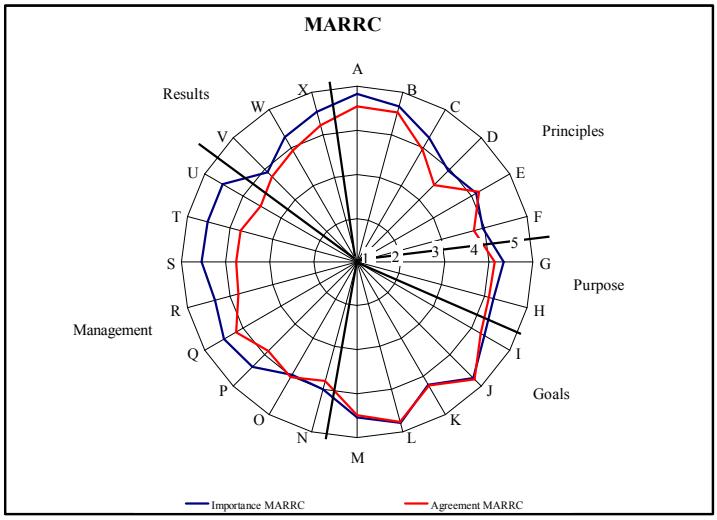
- Statement U. Stakeholders in all provinces demonstrated concern regarding EHC and RI rates for oil containers. MARRC Collectors/Processors ratings were more dramatic and this may indicate an area to be further examined in Manitoba.

Results

- Statement V. MARRC Collectors/Processors reported less agreement with UOMA's effectiveness in increasing their awareness of the importance used oil recovery.

- Statement W. Most provincial Board Members strongly agreed that UOMA has been effective in facilitating private industry's collection of used oil materials. MARRC Board Members' "neutral" rating (and high importance) would indicate an area to be further examined in Manitoba.

Exhibit 4.17
UOMA Survey by Province: MARRC Results – Importance vs. Agreement Ratings



MARRC is significantly meeting stakeholder expectations. The only areas of interest are stakeholder perceptions regarding Environmental Handling Charges (EHC) and Return Incentives rates (statements S, T, U). Further, comments suggest they would also like to see increased awareness about the program and an improvement and expansion regarding filters and containers.

4.3 ADDITIONAL ISSUES TO CONSIDER

Upon considering the variety of reported comments, a number of additional themes have emerged that weren't fully captured in the 24 close-end survey questions.

4.3.1 RECYCLING TECHNOLOGY AND REUSE VS. ENERGY RECOVERY.

A number of processors raised concern regarding used oil furnaces in respect to which technologies are acceptable in the recycling or preprocessing of used oil materials. Derived from Statement F, comments claimed that "RI's should be based on the best use of the product" and "the preferred use for the oil should be able to sell the product for more [whereas] subsidizing less desired processes will create a false economy". Further points of interest were in regards to the use of *ECO Centers* and *furnaces*, where claims were made that "profit is taken away from collectors by those items."

Overall, Collectors/Processors were focused on *how* the materials are recycled, whereas Suppliers and Board Members tended to concentrate on overall reuse through government approved end uses. A number of general comments expressed ambiguity about definitions of recycling and reprocessing and subsequent goals of the program in this respect. On the whole, opinion was mixed on this matter. Some commented, "used oil and related materials need to be used and reused as much as possible and then have a final home in energy recovery". Others expressed the opinion that "used oil should be recycled or reprocessed, as long as this is done in an environmentally sound manner". This followed concerns that some forms of recycling and reprocessing can be "counter productive", citing energy use and potential environmental issues.

4.3.2 STAKEHOLDER REPRESENTATION

Statement Q generated a variety of comments from Collectors/Processors, some of whom believe they are under-represented on the UOMA Board. Some collectors/Processors feel that, given their hands-on experience, their increased presence would help to better guide UOMA and incorporate a broader scope of stakeholder interests in the future direction of the association.

4.3.3 UOMA FOCUS

Although there exists high consensus that UOMA's primary focus should be on the collection of used oil materials from the waste stream (Statement G), there were also a variety of comments identifying other areas that UOMA may consider exploring. Comments included an increased focus on stewardship, infrastructure, communication and education initiatives, increased regulation and tracking, as well as expanding the materials collected.

4.3.4 OIL FILTER CLASSIFICATION

With regards to EHC and RI's of oil filters, a number of Collectors commented on the current classification system, stating, "there are far too many sizes of filters to be lumped into 2 categories". Similarly, a second concern was the "equal pay for automotive filters and industrial filters, which have considerably different weights".

5 BENCHMARK OF USED OIL PROGRAMS

5 BENCHMARK OF USED OIL PROGRAMS

5.1 OVERVIEW

Overall, UOMA is extremely congruent with the 14 programs compared. UOMA's purpose and set of goals are consistent with those of comparable programs. Similar to UOMA, many of the programs were created in response legislation stemming from ongoing environmental concern. UOMA is one of only four programs to collect all used oil materials. UOMA has the second highest collection rate of used oil (75%). In addition, UOMA's methods end uses of used oils are comparable to those of other programs. The differences between UOMA and other programs that participated in the benchmark come in the form of program funding and program design. UOMA's program design and method of compensation are very innovative. Compared to the programs benchmarked, UOMA is a leader.

5.1.1 PROGRAMS COMPARED

1. Used Oil Management Association (UOMA)

The used oil recycling associations across western Canada consisting of BCUOMA (British Columbia Used Oil Management Association), AUOMA (Alberta Used Oil Management Association), SARRC (Saskatchewan Association for Resource Recovery Corporation), and MARRC (Manitoba Association for Resource Recovery Corporation) are not-for-profit organizations, with a membership open to all wholesale suppliers (first sellers) of oil materials in each province. A multi-stakeholder Board of Directors manages each provincial association with representatives from industry, government, and the public at large.

2. Europe

European programs benchmarked included the United Kingdom, Italy, Spain, and Germany. These programs vary in policy, purpose, and design. Information about these programs was obtained from the Organization for Economic Co-operation and Developments report titled "Working Party on National Environmental Policy, Improving Markets for Secondary Materials: Case Study Report on Oils" published in 2004.

3. Australia and Africa

The Australian program is known as the Product Stewardship for Oil Program and was introduced in 2001 by the Australian Government to provide incentives to increase used oil recycling. In April of 1994, the government of South Africa withdrew support for the used oil re-refining industry. Shortly after, the R.O.S.E. (Recycling Oil Saves the Environment) program was created.

4. United States of America

Used oil programs in the United State of America are run at the State level. As a result, the States have different laws about used oil. Many of the State programs are based on the programs in Florida and California. Therefore, these two programs and several others were included in the comparison. The programs in the States of Alabama, California, Florida, Nebraska, South Carolina, Texas, and Utah were used in the benchmark.

5.1.2 COMPARISON CRITERIA

Exhibit 5.1 is a checklist with respect to the programs compared and the comparison criteria. Five broad sections of criteria were established: program overview, results, used oil uses, policies, and the program design. A "√" represents that the data was found and entered into the benchmark, where as an "X" represents that the qualitative or quantitative criterion could not be found.

Exhibit 5.1
Criteria for Comparison

	UOMA	UK	Italy	Spain	Germany	Australia	South Africa	Nebraska	Alabama	South Carolina	Florida	California	Utah	Texas
Program Overview														
Purpose	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Goals/Objectives	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Used Oil?	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Oil Filters?	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Oil Containers?	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Results														
Sales (Liters)	√	√	√	√	√	√	√	√	√	X	X	√	√	X
% Collectable	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Collectable	√	√	√	√	√	√	√	√	√	X	X	√	√	X
Collection	√	√	√	√	√	√	√	√	√	√	√	√	√	√
% Gross	√	√	√	√	√	√	√	√	√	X	X	√	√	X
% Net	√	√	√	√	√	√	√	√	√	X	X	√	√	X
Used Oil Uses														
Use	√	√	√	√	√	√	√	√	√	√	√	√	√	√
% Re-processed	√	√	√	√	√	√	√	√	√	√	√	√	√	√
% Re-refined	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Re-refineries	√	X	√	X	X	√	√	√	√	√	√	√	√	√
Policy														
Legislation	√	√	√	√	X	√	√	√	√	√	√	√	√	√
EHC/Tax(Oil)	√	√	√	√	√	√	√	√	√	√	√	√	√	√
Recovery of EHC/Tax	√	√	√	X	X	√	√	√	√	√	√	√	√	√
Program Funding	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Costs to run program	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Oil Testing	√	X	√	√	X	X	√	√	X	√	√	√	√	√
Program Design														
Return Collection Facilities	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Collectors	√	X	X	X	X	√	√	√	√	√	√	√	√	√
Who are the Collectors	√	X	√	√	X	√	√	√	√	√	√	√	√	√
Gov. Cert/Reg Collectors	√	X	√	√	X	√	√	√	√	√	√	√	√	√
Incentive Scheme	√	√	√	X	X	√	√	√	√	√	√	√	√	√

5.2 PROGRAM COMPARISON

5.2.1 PROGRAM OVERVIEW

The subsequent section presents an overview of each program by stating their quoted purpose, goals, and program scope. Exhibit 5.2 contains the quoted purpose of each program, which can be considered the programs mandate. The goals and objectives of each program are found in exhibit 5.3 showing how the program intends to achieve its purpose. Finally, program scope, found in exhibit 5.4, shows whether programs are limited to used oil collection, or if the scope includes oil filters and containers.

Exhibit 5.2
Quoted Purpose

Program	Quoted Purpose
UOMA	The western Canadian used oil material recycling programs promote and facilitate the recovery of valuable, non-renewable resources by providing both small volume users (such as do-it-yourselfers and farmers) and high volume users (industrial and commercial generators) with a simple, convenient way to recycle used oil, used oil filters and used oil containers.
United Kingdom	Created to encourage the collection of used oil so it does not have an adverse effect on the Environment. Does not specify whether to re-refine, re-process or re-engineer used oil.
Italy	Long-term enthusiasm for the re-refining of used oils into base oil equivalents. Minimization of environmental risk while favouring re-refining.
Spain	To help in the collection of used oils to facilitate re-refining.
Germany	To create a re-refining industry for used oil to ease dependence on imported oil.
Australia	To establish an effective partnership for the management of waste oil, involving oil producers, oil recyclers, States and Territories and the Commonwealth.
South Africa (R.O.S.E)	To promote and encourage environmentally responsible collection and recycling of used oils and associated materials in Southern Africa towards the preservation of the environment.
Nebraska	To ensure that all Nebraskans can recycle of oil in an environmentally sound manner and engage Nebraskans to take greater responsibility for improving their community environment.
Alabama	To conserve energy and preserve a valuable natural resource while protecting Alabama's environment.
South Carolina	To provide a number of return collection facilities available to the public in each county and provide return collection facilities grant funding.
Florida	To deter the illegal disposal of used oil, protect the environment, and encourage collection of used oil.
California	Develops and promotes alternatives to the illegal disposal of used oil through the creation of a state-wide network of collection opportunities and undertaking outreach efforts to inform and motivate the public to recycle used oil.
Utah	To create a safe outlet for material dumped haphazardly into the environment and make a contribution to present energy demands.
Texas	To ensure safe management and recycling of used oil.

UOMA's mandate is consistent with other programs that have been created. Many of the programs outline protecting the environment, avoiding improper disposal of used oil, and the recovery of used oil as a valuable natural resource. Furthermore, some of the programs were created to provide consumers with convenient ways to recycle used oil. UOMA was created in order to "facilitate the recovery" of used oil materials in the western provinces. Virtually all programs other than UOMA are government rather than industry managed. In contrast to UOMA, several programs directly state how used oil should be recycled.

Exhibit 5.3
Goals/Objectives

Program	Goals/Objectives
UOMA	• To increase the recycle rate of used oil, oil filters, and oil containers. • To ensure all areas are achieving adequate recycling rates. • To encourage the development of a strong, competitive, private sector used oil materials collection and recycling industry. • To encourage environmentally sound methods that reduce or eliminate used oil materials going to landfill, or other unacceptable disposal methods. • To maximize the flow-through of Environmental Handling Charge (EHC) that is directed to program costs.
United Kingdom	• Maximize oil collection.
Italy	• Re-refine no less than 90% of used oil collected.
Spain	• Maximize collection for re-refining purposes.
Germany	• To maximize collection of used oil to prevent environmental harm. • Foster re-refining capabilities to allow for minimal foreign oil dependence.
Australia	• Provide economic incentives to increase the uptake and appropriate recycling and use of waste oil. • Encourage the environmentally sustainable management and re-refining of waste oil and its reuse. • Support economic recycling options for waste oil. • Increase industry and community awareness and commitment to waste oil being appropriately recycled.
South Africa (R.O.S.E)	• Collect and recycle all available used oil and associated materials in an environmentally responsible manner through the creation of stable and sustainable partnerships with all stakeholders. • Create an awareness in the mind of the public that used oil is an inherently valuable and recyclable resource.
Nebraska	• Acceptance of individual responsibility is essential for the enhancement of community environments. • Educating the public about responsible individual action toward the environment. • To foster effective community partnerships including representation from the public, private, and civic sectors.
Alabama	• To encourage the collection of used oil that can damage the Environment • Educate citizens on how to recycle used oil. • Secure an energy source for the future.
South Carolina	• Maximize used oil collection.
Florida	• To minimize the amount of oil that reaches the environment in an unsafe matter.
California	• Provide the public with convenient collection locations for used oil. • Increase the demand for re-refined oil. • Develop methods to motivate the public to recycle their used oil. • Provide grants to local governments, non-profit organizations, and for research and demonstration projects.

Program	Goals/Objectives
Utah	• Eliminate, or reduce, the obstacles for proper collection and disposal of do-it-yourselfer (DIYer) used oil. • Make used oil return collection centers more convenient. • Provide the public with educational programs and readily available information.
Texas	• Increase participation of public and private sector organizations and companies as return collection centers. • Increase collection of used oil. • Increase recycling by increasing the number of return collection centers. • Provide education and technical guidance to the regulated community and the public.

The theme of protecting the environment is very common to all of the programs. UOMA's goal of setting out to preserve used oil as a non-renewable resource, is similar to other programs. UOMA intends to minimize the percentage of the levy that is directed towards funding program administration, which no other program makes note of pursuing. A goal that UOMA does not list, but that is implicitly implied is the facilitation of collection through the creation of numerous and accessible return collection facilities.

In contrast to UOMA, several programs consistently state that they intend to increase public awareness about used oil recycling and the uses of recycled used oil. Furthermore, some programs, such as Alabama, have set out to secure used oil as an energy source for the future. California has set a goal of trying to reduce buyer risk aversion by attempting to increase demand for re-refined oil. Overall, UOMA goals are consistent to those of similar programs.

Exhibit 5.4
Program Scope

Program	Used Oil?	Oil Filters?	Oil Containers?
UOMA	☑	☑	☑
United Kingdom	☑	?	?
Italy	☑	?	?
Spain	☑	?	?
Germany	☑	?	?
Australia	☑	λ	λ
South Africa (R.O.S.E)	☑	X	X
Nebraska	☑	X	X
Alabama	☑	X	X
South Carolina	☑	☑	☑
Florida	☑	☑	☑
California	☑	λ	X
Utah	☑	X	X
Texas	☑	☑	X

Symbol	Meaning
☑	In scope
λ	Partially in scope
X	Not in scope
?	Unknown

In Australia, several return collection facilities collect oil filters, oily rags, and plastic oil containers. In California, do-it-yourselfers bring the filters to the same collection sites that they bring the used oil. These programs have not promoted the collection of used oil filters since funding is not allocated for this purpose. Collectors are not given incentives to collect used oil filters and containers.

In Utah, the used oil program supported a proposed bill to amend the Used Oil Statute that was ultimately defeated.

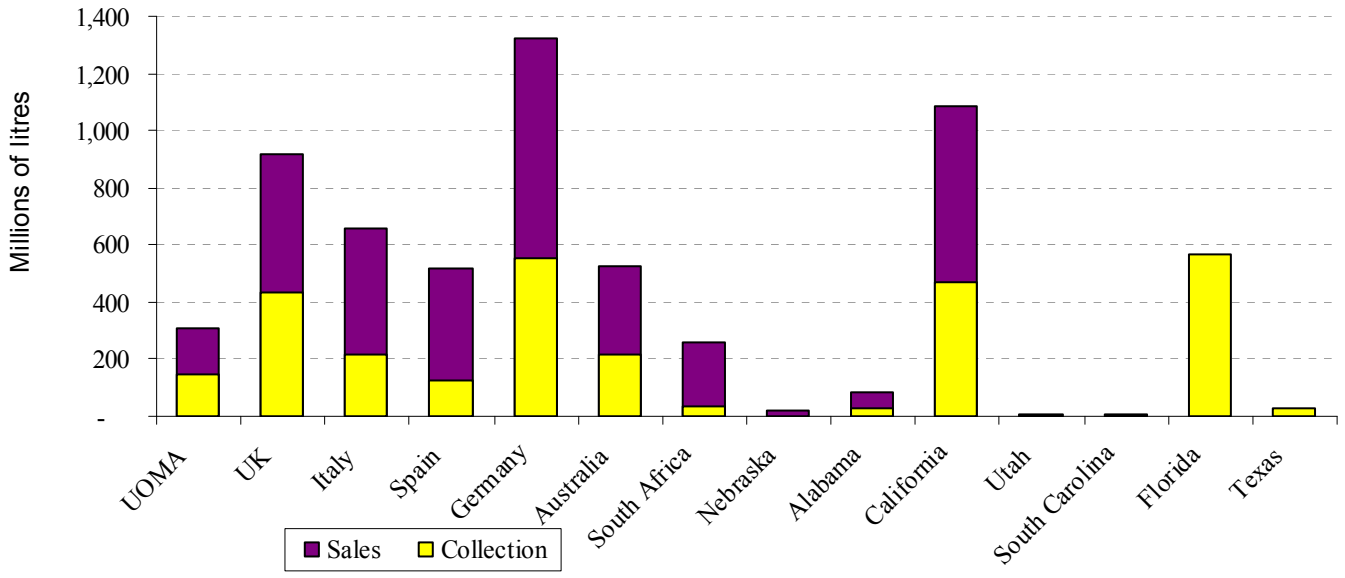
A few of the state programs, such as California, plan to implement or augment used oil filter and container collection. Currently, most programs follow the regulations established by the Environmental Protection Agency whereby filters are punctured and hot drained prior to disposal. Apparently, a significant number of used oil filters end up in landfills.

- Four programs collect oil filters: UOMA, Florida, Texas, and South Carolina
- In UOMA, 0il filters are shredded or crushed, and sent to steel mills for processing. The metals are re-used as material for other metal products such as rebar, nails and wire.
- In Florida, waste-to-energy (WTE) facilities burn the oil within the filter for energy recovery and recycle the metal casting.
- In 2002, the Texas program collected 450,000,000 oil filters.
- In South Carolina, the filters are drained, crushed and sold as scrap metal.

5.2.2 RESULTS

The following section shows the results of the programs. Exhibit 5.5 shows the amount of oil sold in the areas that the programs are run, and exhibit 5.6 displays collection rates for the programs.

Exhibit 5.5
Sales and Collection - Millions of Liters

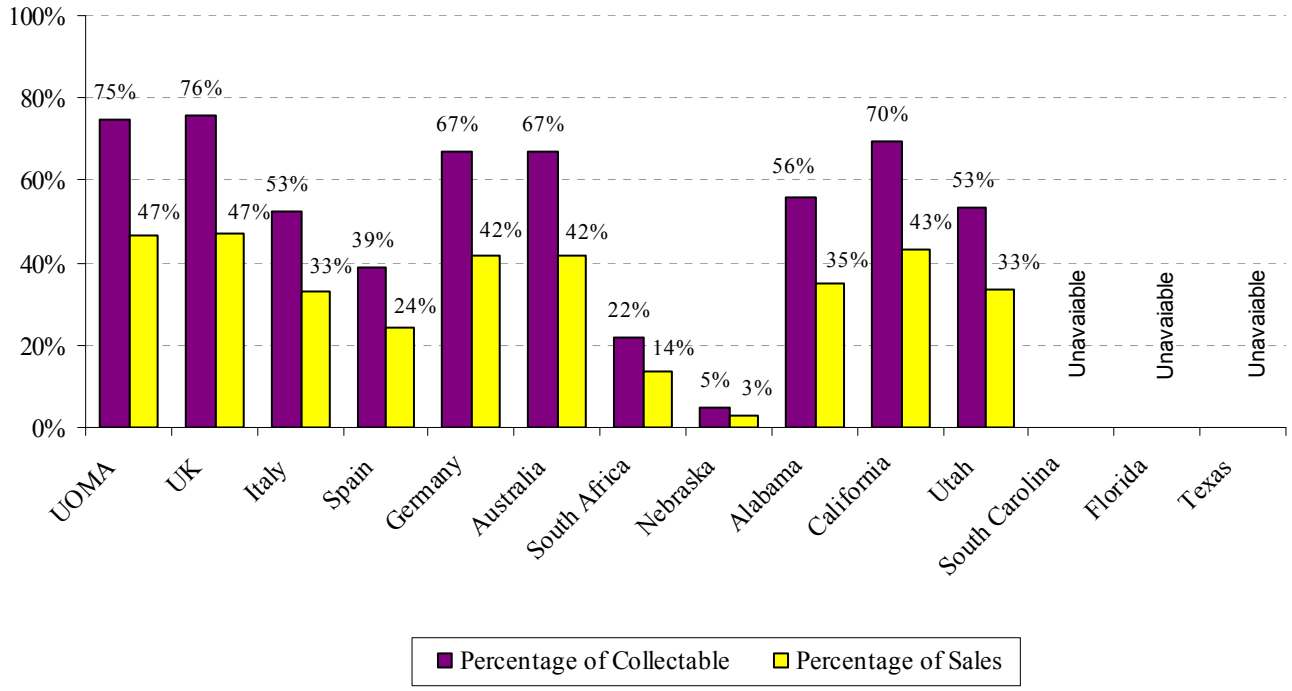


The programs in Alabama, South Carolina, Florida, Utah, and Texas, do not know how much oil is sold in their respective States. Therefore, in exhibit 5.6 it becomes impossible to calculate their percentages of collection. The state of Nebraska is a rural state and as a result struggles in collection due to distances needed to travel to return collection facilities. Furthermore, several programs only collect used oil from do-it-yourselfers, or people who change their own oils, and industrial quantities collected are unknown. The numbers for total oil sales and used oil recycled found in exhibits 5.5 and 5.6 are based on the best information available, but require further study.

With oil sales exceeding 1,325 million litres, Germany sells the most oil. However, the state of Florida collects about 570 million litres of used oil exceeding Germany by 30 million litres. In 2004, the western provinces, about 307 million litres of oil are sold and 144 million litres are collected.

Some of the oil is unrecoverable due to use. A weighted average of estimates between UOMA's members generated an approximation that 62% of oil is recoverable. This is consistent with other programs and was therefore used in calculating estimated collection levels for each program. Behind the UK, UOMA was found to be the second most collective program. UOMA collected 47% of oil sales and 75% of oil collectable, whereas the UK collected 47% of oil sales and 76% of oil collectable. The California program had the third best collection rates - 43% and 70%.

Exhibit 5.6
Percentages of Collection – Net and Gross



Only 4 benchmarked programs collected used oil filters and containers – UOMA, Florida, South Carolina, and Texas. There is very little data available pertaining to container collection. Exhibit 5.7 displays the total number of filters collected, and where available, the percentage of collection. South Carolina and Texas do not have data regarding filter sales. Collecting 79% of sales, UOMA can be considered to be very efficient in filter collection.

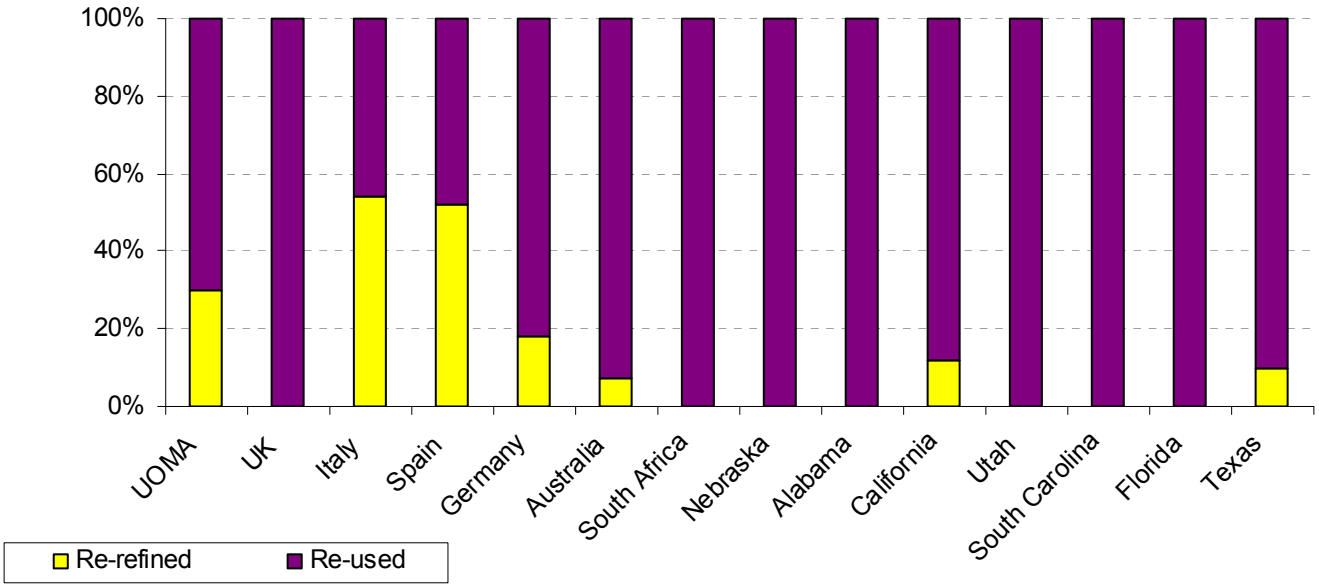
Exhibit 5.7
Used Oil Filter Collection

	UOMA	South Carolina	Florida
Filter Sales	17,058,318	Unknown	51,748,583
Collection	13,502,115	320,000	33,636,579
Percentage of Sales	79.2%	Unknown	65.0%

5.2.3 USED OIL USES

The following section describes how programs re-use the used oil collected. Generally, programs re-use used oil in one of two ways: re-refining or re-processing. Exhibit 5.8 displays the percentages of used oil that are re-processed as compared to re-refined. Exhibit 5.9 describes how programs re-use used oil. Policies and goals of re-refining are described in exhibit 5.10.

Exhibit 5.8
Allocation – Collected Used Oil



As previously mentioned, Italy, Spain, and Germany, all heavily favour the re-refining of used oil. Therefore it is very surprising to see that UOMA re-refines 30% of used oil collected. For details about re-refining used oil, refer to exhibit 5.9. The ways used oil is re-processed are described in exhibit 5.10.

Exhibit 5.9
Methodology – Re-use (Excluding re-refining)

Program	Method of re-use	UOMA
UOMA	• Burned for energy recovery. • Other products such as drilling fluids, asphalt flux, etc.	☑ ☑
United Kingdom	• Burned for energy recovery.	☑
Italy	• Burned for energy recovery.	☑
Spain	• Burned for energy recovery.	☑
Germany	• Burned for energy recovery.	☑

Program	Method of re-use	UOMA
Australia	• Industrial burner oil, where the used oil is dewatered, filtered and demineralised for use in industrial burners. • Mold oil to help release products from their molds. • Hydraulic oil. • Bitumen based products. • An additive in manufactured products.	☑ ☒ ☒ ☒ ☒
South Africa (R.O.S.E)	• Processed into low-grade industrial heating fuel or as heavy furnace oil. • Burned for energy recovery. • Used in explosives.	☑ ☑ ☒
Nebraska	• Burned for energy recovery. • Production of asphalt for roads and highways.	☑ ☑
Alabama	• Burned for energy recovery.	☑
South Carolina	• Burned for energy recovery.	☑
Florida	• Used in phosphate beneficiation (see below). • Burned for energy recovery.	☒ ☑
California	• Bunker fuel used in ships at sea. • Burned for energy recovery.	☒ ☑
Utah	• Burned for energy recovery.	☑
Texas	• Burned for energy recovery.	☑

From the programs studied, the most common use for used oil is burning it for energy recovery. The used oil can be sold to various industries as an energy source, such as cement making plants where kilns are used. As demonstrated from exhibit 5.9, a less common used for used oil appears to be for production of asphalt for roads and highways.

Due to the geographical factors, some programs have found special ways to use used oil. California re-processes the oil and it is used as bunker fuel for ships at sea. Florida has the world's third largest deposit of phosphate. They discovered that used oil could be used to assist in phosphate beneficiation. When phosphate is dug up from the ground it is mixed with several compounds including water and used oil. The phosphate attaches itself to the used oil and rises to the top of the solution. The used oil and phosphate compounds are skimmed off the top of the solution. In order to split the used oil from the phosphate, the solution is put through processing, such as a sulphuric acid bath.

In Australia, used oil is re-processed into mold oil that helps release products from their molds - pressed metal products and concrete. A discovery by R.O.S.E in South Africa was that used oil was being used as a compound in explosives. This practice is not yet approved by R.O.S.E., but is in place in North America.

Exhibit 5.10
Methodology – Re-refining

Program	How is re-refined oil used?
UOMA	In UOMA, there are two re-refineries – Safety Kleen and Newalta. Together, they re-refine about 43.1 million litres of used oil per year – accounting for 30% of UOMA's collection.
Italy	Italy's policy requires that a minimum of 90% of used oil collected is to be re-refined. In 2003, 54% of used oil collected was re-refined. The oil that is re-refined is sold in the same market as virgin oils. In 2003, there were 6 re-refining plants in Italy. These plants had a total re-refining capacity of roughly 300 million litres of used oil. Only 120 million litres of used oil were re-refined leaving an excess capacity of 60%.
Spain	In 1997, Spain re-refined 52% of the oil that was collected amounting to 65 million litres of oil. The Spanish government strongly favours re-refining used oil and addressed risk aversion by creating a market for re-refined oil. Public vehicles use the re-refined oil. The costs of engine tests were paid for by the State.
Germany	In 1997, Germany re-refined 18% or 100 million litres of used oil. Germany's program was created with the purpose of easing dependence on imported oil. Therefore it is not surprising to see that the re-refined oil is sold in virgin oil markets.
Australia	In 2003, Australia re-refined about 16 million litres of used oil. This accounted for 7% of used oil collected.
South Africa (R.O.S.E.)	In South Africa, the re-refiner is called Flexilube. The re-refiner buys used oil from outside of the program. The quantity of used oil collected in exhibit 5.5 and 5.6 do not reflect this quantity because the used oil re-refined by Flexilube is collected outside of the R.O.S.E. program.
California	In California, there is one re-refinery, Evergreen, with a capacity of 60,000,000 litres per year. The plant re-refines 55,000,000 litres per year and has an excess capacity of 7% that is significantly lower than Italy's re-refineries. About 12% of used oil collected is re-refined.
Texas	Texas re-refines about 2.5 million litres of oil, accounting for 10% of the used oil collected. When the Texas program was initially founded, the purpose was similar to that of Italy's – refine a minimum of 90%. The reason the Texas program changed direction is because of market demand. Collectors of used oil find it more profitable to sell used oil to other states, such as Wisconsin, where the used oil is reprocessed and burned for energy recovery. In colder months, more oil is burned than in warmer months.

With a focus on collection rather than end use, UOMA re-refines about 30% of collected used oil. This percentage is outstanding compared to programs with a similar focus. Programs with a focus on end use tend to re-refine more used oil than UOMA. Contrary to the statement that programs with policies favouring the collection of used oil and related materials appear to have *high* collection rates and *low* re-refining rates, UOMA appears to have both *high* collection rates and *high* re-refining rates.

5.2.4 POLICY

Some of the most influential factors affecting the programs are Government policies in the areas that the programs were created. Exhibit 5.11 outlines the laws and legislation that caused the creation of the programs. Exhibit 5.12 compares the Environmental Handling Charges (EHC) or taxes charged on oil sales and where the fees go. Program funding and expenses are displayed in exhibit 5.13. Exhibit 5.14 contrasts the testing policies and costs.

Exhibit 5.11
Laws and Legislation

Program	Laws and Legislations
UOMA	The Canadian Council of Ministers of the Environment (CCME) declared that used oil was one of the most hazardous recycling waste streams in Canada. Provincial Environment Ministers subsequently decided which oils would be collectable. Collectable Oils receive an industry-assessed Environmental Handling Charge (EHC).
United Kingdom	"Government favours the regeneration of waste oil as lubricant wherever practical but sees no reason, environmental or otherwise, to discriminate against the use of waste oil as supplementary fuel…It is highly questionable whether regeneration is always the most rational way of re-using waste oil, and the decision as to whether to regenerate as lubricant or to use as fuel is best left to the operation of market forces." - William Waldegrave (Parliamentary Under Secretary of State, Department of Environment, April 2 1985)
Italy	Requires that a minimum of 90% of collected used oil goes to re-refineries and a maximum of 10% be sent to cement kilns for energy recovery. This policy is currently under review.
Spain	Re-refined oil is used in public vehicles, re-refining is preferential to other methods of recycling. This policy is currently under review.
Australia	"The Commonwealth will fund the development of a comprehensive product stewardship program arrangement and provide transitional assistance to ensure the environmentally sustainable management and re-refining of waste oil and its reuse. It will support economic recycling options and the development of stewardship arrangements. Any diesel extenders or other products manufactured from recycled waste oil will be required to meet the relevant Commonwealth environmental standards." - John Howard, Prime Minister of Australia, May 31 1999.
South Africa (R.O.S.E)	There are no laws or legislation regarding used oil in South Africa.
Nebraska	State law banned disposal of waste oil in landfills beginning September 1, 1994.
Alabama	Collecting and recycling used oil is the primary legal disposal method. Improper disposal can result in criminal penalties, civil liability, and expensive fines.
South Carolina	The Pollution Control Act states that used oil dumping is illegal and results in fines of $250 to $12,000. Solid Waste Management and Policy (1991) states that it is illegal to dispose in landfill and waste dumps.
Florida	In 1988 it became unlawful for used oil to be discarded into sewers, drainage systems, septic tanks, surface or ground waters, watercourses, or marine waters.
California	In 1991 the California State Legislature passed the Oil Recycling Enhancement Act to address the significant threat to California's environment from illegally dumped used oil. California HSC section 2525 .5.a: • "The disposal of used oil by discharging to sewers, drainage systems, surface or ground water, watercourses, or marine waters; by incineration or burning as fuel; or by deposit on land, is prohibited, unless authorized under other provisions of the law" California HSC section 2525 .5.b • "The use of used oil or recycled oil as a dust suppressant or insect or weed control agent is prohibited unless allowed under another applicable law, but only to the extent that use as a dust suppressant or insect or weed control agent is consistent with the federal act."
Utah	Used Oil Management Act prohibits the disposal of used oil in landfills and other areas, such as road oiling and dust suppression, which could result in contamination of groundwater and drinking water supplies, as well as cause air pollution problems with emissions of volatile organic compounds (VOCs).
Texas	Texas law prohibits dumping used oil on land or into sewers or waterways. This includes the use of used oil as a dust suppressant. In 1980 legislation was put into place that promoted the re-refining of used oil.

There are many types of laws and legislation that laid the groundwork for the creation of used oil programs. The most common element is the identification of used oil as hazardous wastes or as harmful to the environment. The South African government completely abandoned their support of the used oil program.

Exhibit 5.12
Environmental Handling Charge (EHC) – Amount and Recovery

Program	EHC (cents/litre)	Recovery
UOMA	5¢	The EHC is used to fund the program. The EHC is distributed to the collectors through a return incentive (RI) – refer to section 5.2.5.
United Kingdom	86¢	The UK charges a 17.5% levy recoverable by almost all commercial and industrial users. Those excluded are buyers of oil for personal use.
Italy	46¢	Italy charges a variable three-part levy of €325 per tonne (46¢ per litre). The three levies are charged as an Environmental Handling Fee (EHF), re-refining/disposal fee, and public campaign/education fee. The levy is used in the following ways: • About 20% levy is used to subsidize operators of re-refining and fuel manufacturing plants. • The remaining 80% is paid to the Government for environmental enforcement and clean up costs. For the year 2002, approximately $50 million was collected.
Australia	5.2¢	Funds the Stewardship Program as well as benefit payments to used oil recyclers.
South Africa	None	Industry funds the R.O.S.E. foundation.
Nebraska	6¢	The funds are used in a Statewide fund.
Alabama	2¢	The funds are used in a Statewide fund.
South Carolina	2.6¢	Directly used to fund the program.
Florida	5.2¢	The funds are used in a Statewide fund.
California	5.2¢	Directly used to fund the program and create return collection facilities.
Utah	5.2¢	Directly used to fund the program.
Texas	5.2¢	The funds are used in a Statewide fund.

The average fee charged is 15.8¢ per litre. The average for North American programs is 4.5¢ compared to 45.7¢ for non-North American programs. UOMA's EHC is consistent with similar programs in North America. Most commonly, the fees collected are used to fund the used oil programs. Many of the State programs charge the EHC as a sales tax. In many cases the used oil programs receive only a small portion, if any, of these funds. A potential reason that the State programs do not receive all of the funds generated by the EHC is that the programs were created as government, rather than industry managed.

The EHCs in the exhibit were all converted to Canadian Dollars using exchange rates on January 26, 2005 (refer to appendix G).

Exhibit 5.13
Program Funding and Expenses

Program	Funding	Expenses	Funding-Expense Ratio
UOMA	UOMA is funded through the EHC on oil when it is sold and is a self-sustaining program. EHC total amounted to about $32.2 million in 2004.	The costs of running the program, incentives, and administrative charges, amounted to $30.4 million in 2004.	1.06
Australia	The Australian program is funded through the EHC on oil when it is sold and is a self-sustaining program. In the 2003-04 financial year, the EHC collected $24.5 million.	For the same time period, the total expenses were $20 million. Operating costs (including salaries) were $1 million. The major program expense came in the form of benefit payments for oil recycling ($13 million).	1.23
South Africa (R.O.S.E)	The main lubricant marketers in South Africa have invested heavily in the Rose Foundation. They give 1.87 cents per litre of oil sold. They sold 241 million litres in South Africa. Total funding for 2004 was $3,741,000 (18 million ZAR).	In 2004, expenses totalled $6.2 million. The funds are used for: • Collection of used oil. • Incentive payments. • To promote recycling of used oil • Fund R&D in recycling used oil • To manufacture and install mini tanks.	0.60
Nebraska	Program funding provided by the Nebraska Department of Environmental Quality's Waste Reduction and Recycling Incentive Grant Program. Funding is variable year to year.	Used to pay for equipment, supplies that test for oil and setup costs. Total costs equalled the amount of grants given - $200,000.	About 1
Alabama	The Alabama Department of Economic and Community Affairs has funded the Alabama project for 27 years. Last fiscal year, management found out that they would no longer be funded. Another state agency stepped-up to fund them this fiscal year.	The costs of running the program over the last three years have been about $100,000. These are administrative expenses for the management and supervision of the program.	About 1
South Carolina	The State gives grants to the program. In 2003, the grants totalled $400,000.	The grants are distributed to the counties to help in the collection of used oil, filters and containers.	About 1
Florida	In 1988, the State made a one-time injection of more than $3 million dollars to set up the program.	Today, the annual cost of running the program is only for administrative and regulatory purposes - $73,000 per year.	About 1
California	Funded through a fee on manufacturers on any oil brought into California. Using 2003 figures, the total fees would exceed $20 million.	To implement the program, it costs about $4 to $5 million per year. The remaining funds are delegated to the counties who use them to set up return collection facilities.	About 1
Utah	Funded through the sales tax of 5.2¢ per litre.	The main costs to the program come in the form of subsidization. Costs of running the program totalled $680,000.	About 1
Texas	Funded through the sales tax on base oils. For 2004, the program received $1.48 million in funding and is projected to receive $1.2 million in 2005.	The costs of running the program for 2004 were $1.08 million.	1.37

Program funding comes from a similar source – the EHC or sales tax on used oil. The funds received are used for administration and incentives. For details on incentive and compensation schemes, refer to section 5.2.5. Compared to UOMA some of the programs consistently state that funds are to be used or are being used to educate the public on how used oil affects the environment. In South Carolina, NASCAR driver Jeff Gordon serves as the state's spokesperson on used oil recycling and appears in a 30-second public service announcement.

In the rightmost column is a funding-expense ratio. The purpose of the ratio is to determine how much funding is being dispersed down the integrated value chain as opposed to being saved for future investments. In some cases, the ratio is "About 1" because of grant funding where the exact figures for either funding or expenses are unknown. In these cases, the funds are all used to pay collection grants and administrative expenses, making the ratio about 1.

UOMA's funding-expense ratio is 1.06. Australia's ratio is slightly higher than UOMA's. Due to Australia's incentive scheme, the ratio will likely decrease in the future as more used oils are re-refined. At 1.37, the Texas program has a ratio that is higher than UOMA's. California has a fixed cost base of $4 to $5 million dollars per year. The remaining funds are then dispersed to the counties for creation of collection facilities and recycling centres. Therefore, the ratio is about 1.

Exhibit 5.14
Used Oil Testing

Program	Testing
UOMA	UOMA does not regulate testing. Government-licensed collectors conduct used oil tests in order to meet regulatory requirements for contaminants. Government-approved processors further test for contaminants and water when used oil arrives at their facilities. If there is too much water in the oil, then UOMA does not pay the collector a return incentive.
Italy	Used oil is tested at collection then again upon delivery to ensure quality; less then acceptable oils are delivered to cement kilns. Testing costs are met by the variable levy on lubricant products. If the oil is below testing requirements, it is not collected. It falls outside the program and is collected by independent business at cost. Consequently, Italy has lower collection rates.
Spain	If a minimum of 400 litres of used oil is pre-tested, it will be picked up for free. Testing is considered essential in the Spanish program.
South Africa (R.O.S.E)	The oil is tested at collection to see if there are too many additives or contaminants in it. If there are too many contaminants, then the oil is collected by the hazardous materials companies.
Nebraska	Oil is tested when it is brought to the site. The collector, Tri-State, will also randomly test the oil for quality. Costs for testing vary based on the amount of used oil per test batch.
South Carolina	The collector, Saunte Cooper, tests the oil when it is collected from the return collection facilities.
Florida	Testing occurs when collectors pick-up the used oil from return collection facilities. Collectors run a halogen test to determine if the used oil meets specifications set out by Federal Law. Costs for testing are around $492 per batch (75-40,000 litres). Further testing, known as quality assurance test, is conducted at processor labs.
California	Testing is conducted at the processor level. If there is too much water, gasoline or additives, then it is rejected from recycling and sent elsewhere. Collectors can test, but it is not required.
Utah	A halogen test is completed upon collection using a Dexal kit. The kits cost about $7.36 each and test can test about 4,000 litres.
Texas	There are very few tests done on used oil. The tests conducted are for PCB's and 5 types of metals. The purpose of the test is to determine if oil is on-specification or not. If the used oil is on–specification, no further requirements are necessary. However, if the oil is off-specification, it is blended with base oils to meet specifications. A maximum of 10% of used oils can be used in blending.

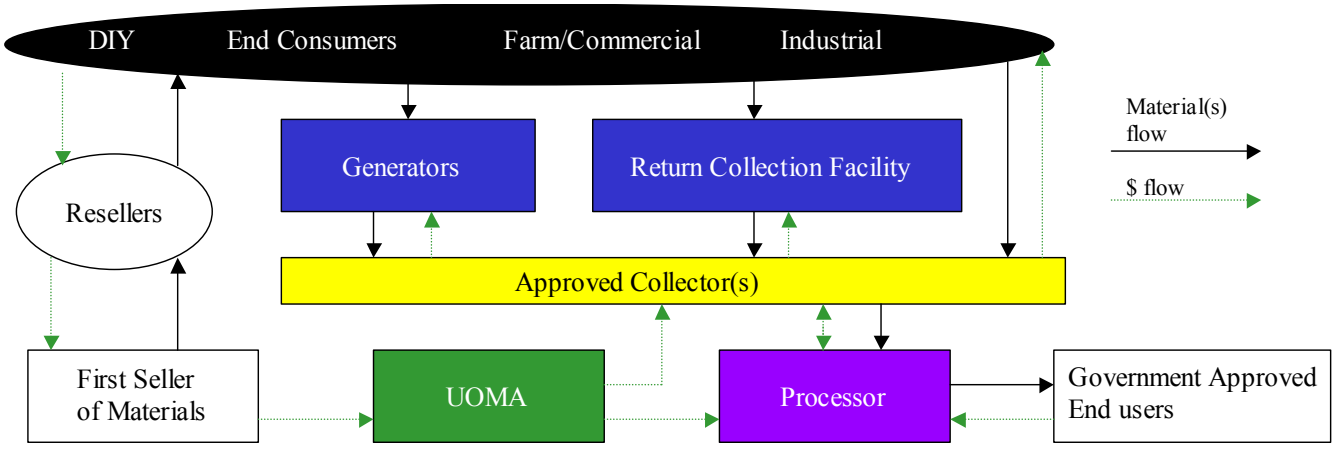
Although the point of testing varies, testing used oil for contaminants and impurities is a common element tp in many of the programs. Many of the programs do not regulate testing – it is done outside of the system. The most common testing point is the processor stage. The processor usually pays the testing costs. In some instances, the used oil management programs have subsidized testing costs. Testing requirements vary from one location to another.

5.2.5 PROGRAM DESIGN

The following section outlines how UOMA's program design differ from other programs. Aspects of design include generator, return collection facilities, collectors, and processors. The following definitions[2] apply:

Generator	- The user of lubrication oil, filters and/or containers who through normal application of the products generates used oil materials.
Do-it-yourselfer (DIY)	- Consumers who purchase their own oil and service their own vehicles and equipment.
Return Collection Facility (RCF)	- A facility that agrees to receive used oil, filters or containers.
Collector	- A government-approved carrier that picks up used oil materials from Return Collection Facilities and/or Generators and delivers them to a Processor.
Processor	- A government-approved receiver of one or more used oil materials that processes these materials into saleable products.

Exhibit 5.15
UOMA Design



[2] BCUOMA Manual for Collectors and Processors, November 2004, pg 3,4

Exhibit 5.15 presents an overview of what the used oil collection process is since the creation of UOMA. Before the creation of UOMA, generators and the do-it-yourselfer would collect used oil. Collectors would then collect from generators and charge them a fee to collect the used oil materials. In many cases, the do-it-yourselfer and sometimes the generator would refuse to pay collectors the pick-up fee and would dispose of the materials another way.

UOMA was created to maximize collection and reduce environmental harm. Using the EHC, UOMA pays the collectors an incentive to collect the used oil, filters and containers from return collection facilities and generators. The total incentive approximately equals the EHC plus any fees that would have been paid previously for disposal. The intent is that under normal circumstances, incentives are set to allow the collectors to compensate the generators or return collection facilities and where applicable the processors. UOMA creates synergies between the return collection facilities and collectors, by creating a value chain that distributes the EHC among its stakeholders.

In order to facilitate an appropriate contrast to UOMA, the following tables shows the number of return collection facilities and collectors, and describes how collectors are compensated in each program. Exhibit 5.16 compares the quantitative aspects of program design where as exhibit 5.17 compares the qualitative aspects.

Exhibit 5.16
Program Logistics

Program	UOMA	Australia	South Africa	Nebraska	Alabama	South Carolina	Florida	California	Utah	Texas	Average*
Number of Return Collection Facilities	1,500	1,000	400	67	640	700	1,055	2,659	300	2,266	1,228
Number of Collectors	125	30	20	1	12	1	125	200	25	500	130
Return-Collection-Facilities-to-Collectors ratio	12	33.33	20	67	53.33	700	8.44	13.3	12	4.53	20
Percentage of Collectable Used Oil Collected (Gross)	47%	42%	14%	3%	35%	NA	NA	43%	33%	NA	36%
Population per Return Collection Facility	5,987	19,913	101,459	25,541	6,949	5,731	15,149	13,313	7,333	9,620	22,466
Population per Collector	71,848	663,771	2,029,181	1,711,263	370,592	4,012,012	127,859	177,000	88,000	43,600	446,481

* Does not include South Carolina or Nebraska – seen as outliers due to the Number of Collectors

Compared to the average, UOMA has a greater number of Return Collection Facilities. Under UOMA's design, generators also collect used oil - UOMA has over 4,000 generators. Furthermore, UOMA has lower than average population per return collection facility and per collector. UOMA has a good balance of collectors and return collection facilities in relation to its population base.

Exhibit 5.17
Method of compensation

Program	How collectors receive compensation.
UOMA	See exhibit 5.15.
United Kingdom	As of 2003, collectors were given 6¢ per litre of oil collected.
Italy	Processors pay the collectors for collection of used oil. Re-refiners pay 7¢ per litre and industrial kilns pay 4.2¢ per litre.
Australia	The PSO program pays the oil processors (not the collectors) when they have finished working on the used oil and either sold it to someone who is going to re-use it or used it within their own business. The rate of benefit varies widely according to the amount of re-processing undertaken with re-refining getting 47.8¢ per litre and poor quality oil on which no work has been done getting no benefit at all. Although collectors do not get subsidised directly it is probable that some of the benefits paid to recycler's flow through to collectors in the form of higher prices. This in turn should encourage collectors to collect stocks of used oil that were not previously worthwhile collecting.
South Africa (R.O.S.E)	Collectors pay the generators of used oil and then sell the used oil to processors.
Nebraska	Grants are given by the State in order to set-up return collection facilities. A company called Tri-state collects the oil and pays 3.6¢ per litre.
Alabama	There are no incentives through the program. Used oil is sold to re-processors for a fee.
South Carolina	The government provides set-up grants and re-processors pay return collection facilities for the used oil.
Florida	Grants were used to create the used oil recycling system in 1988. Like Nebraska, Tri-state collects the oil and pays 3.6¢ per litre.
California	Collectors are reimbursed 5.2¢ per litre. This is equivalent to the State tax on oil.
Utah	The collectors are given incentives the exact same way as in California.
Texas	Collectors sell the used oil to processors and re-refiners.

UOMA system is very unique compared to other programs. Instead of giving incentives to collectors, the Australian program gives incentives to processors. In contrast to UOMA's program, about half of the European and State program generators, collectors, and return collection facilities profit by selling the used oil to re-processors. The other European and State programs are similar to UOMA and give an incentive equivalent to the tax or EHC collected.

When compared to 14 programs around the world with a focus in North America, UOMA was found to have outstanding collection rates as well as a consistent purpose and set of goals. Furthermore, UOMA has a unique program design and incentive scheme. UOMA is one of four participants that collect all used oil materials, and one of three programs that recycle used oil filters safely. UOMA re-refines a percentage of used oil that is comparable to programs with a focus on collection. Furthermore, the end uses for used oil are no different than other programs.

Compared to the other programs, and when rated according to the five groups of criteria, UOMA appears to be a leading used oil program.

6 OVERALL PROGRAM REVIEW RESULTS

6 OVERALL PROGRAM REVIEW RESULTS

BearingPoint was engaged to assist UOMA to conduct a comprehensive program review of the used oil recycling programs across Western Canada. UOMA's principles, purpose, goals, management, and results were reviewed as whole and at the provincial association level. The provincial associations include AUOMA (Alberta Used Oil Management Association), BCUOMA (British Columbia Used Oil Management Association), MARRC (Manitoba Association for Resource Recovery Corporation), and SARRC (Saskatchewan Association for Resource Recovery Corporation).

The program review consisted of four phases:

1. Development of a comprehensive project charter.
2. Conducted surveys and interviews with almost 400 program stakeholders.
3. Benchmarked UOMA's programs against 14 leading European and American.
4. Criterion Research Corporation (Ipsos Reid) conducted over 2000 Western Canada-wide public surveys.

6.1 OVERALL FINDINGS

Overall, stakeholder survey results were very positive, UOMA's program compares very favourably to all other programs benchmarked, and public surveys indicate recycling attitudes and behaviours are constantly improving. There was especially strong support from stakeholders regarding UOMA's principles, purpose, and goals. UOMA is a leader in program design, collection, and compensation scheme. All benchmarked programs were found to have common themes, but each is somewhat unique. UOMA is a world leader in maximizing used oil collection rates (over 75%) and re-refining rates (30%). The public surveys indicate behaviour and attitudes have shifted to sustain these extremely high collection rates.

6.2 STAKEHOLDER SURVEY RESULTS

The core phase of the program review was a 24-question survey provided to all stakeholders augmented by thirty plus selected in depth interviews. A stakeholder list composed of 396 organizations representing Board Members, Suppliers, Collectors/Processors and interested Associations across the four provinces was created. A stakeholder survey website was developed and the survey was conducted through the Internet with a hardcopy option for those who preferred it.

The survey was conducted throughout October and November of 2004. Out of the 396 organizations that were invited to participate, 119 responses were received representing a 30% response rate. This is a superior response rate and is considered to be statistically valid given adequate representation of all stakeholder groups as well as an acceptable sample within each province. From this, a total of 36 stakeholders representative of each group were selected from each province for detailed interviews. Ultimately, 30 interviews were conducted as several selected individuals and/or organizations were unable to participate due to conflicting timing and scheduling issues.

Stakeholder survey results for UOMA, AUOMA, BCUOMA, MARRC, and SARRC are illustrated in the following section. The overall stakeholder results for each of the provincial used oil management programs is illustrated in exhibit 6-1, 6-2, 6-3, 6-4, and 6-5.

The survey was presented with the following 24 questions designed to gain insight into five categories of program performance—principles, purpose, goals, management, and results.

Principles

A. Used oil and related materials should be collected and removed from the waste stream.

B. Used oil and related materials, once collected, should be reprocessed or recycled.

C. Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

D. Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

E. All used oil material collected should be delivered to a government-approved reprocessor or recycler.

F. Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

Purpose

G. UOMA's primary focus should be on the collection of used oil materials from the waste stream.

H. I understand that my participation in UOMA activities helps the organizations' achieve used oil material recovery in Western Canada.

Goals

I. UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

J. UOMA should ensure the administration of programs is performed in a cost effective manner.

K. A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

L. The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

M. UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

Management

N. Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

O. On the whole, my experience with UOMA administrative staff has been positive.

P. UOMA appears to be fair and consistent in its administration of the used oil management program.

Q. A board that incorporates stakeholders' interests directs UOMA's operations.

R. It is clear how I can communicate my concerns with UOMA.

S. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

T. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

U. UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Results

V. Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

W. UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

X. Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

In regards to the actual rating, both importance and agreement were measured on a scale of 1 through 5.

For importance, values were coded as follows:

1. Not at all important
2. Somewhat unimportant
3. Neither unimportant nor important (neutral)
4. Somewhat important
5. Extremely important

For agreement, the responses were coded as follows:

1. Strongly disagree
2. Disagree
3. Neither agree nor disagree (neutral)
4. Agree
5. Strongly agree

UOMA had very positive stakeholder survey results that are illustrated in exhibit 6.1. Overall, stakeholders strongly agreed that UOMA's principles, purpose, and goals were aligned. Furthermore, stakeholders agree that UOMA is attaining its objectives, is well managed, and is achieving desired results. The points of interest for UOMA are as follows:

- Program principles appear to be in line with stakeholder values and all stakeholders strongly support the collection of used oil materials from the waste stream versus end use.
- Very strong support for the program to remain in the present structure rather than become self-sufficient.
- Stakeholders displayed strong support for collectors and processors being government approved.
- General consensus among all stakeholders that RI's should not favour different technologies.
- Consensus regarding the importance of and support towards UOMA's purpose and goals.
- Strong support for consistency of all used oil programs across Western Canada.
- The management section of the survey indicates that UOMA is doing a good job of meeting stakeholder expectations on a variety of administrative issues.
- Consensus that it is extremely important that RI's and EHC's are reasonable.
- Reasonable stakeholder acceptance of current oil, filter, and container RI's.
- The responses in the results section were very positive, demonstrating stakeholder confidence that UOMA is in fact improving collection and recycling of used oil materials in Western Canada.

In general, UOMA suppliers are pleased with the program and feel UOMA is meeting their expectations. Although it may not be a direct concern for this group (RI rates), the area of most concern to this stakeholder group are EHC and RI rates. Their interest focused on ensuring the program remained fiscally prudent and that EHCs and RIs remained reasonable. This group raised few other issues on the survey and during the interviews.

UOMA collectors and processors expressed satisfaction with the program and place the most emphasis in areas of management and results. Collectors and processors displayed a high degree of polarity in UOMA eventually disappearing. When compared to the other stakeholder groups, collectors and processors were least in agreement with private industry self-sufficiency. Collectors and processors expressed a desire for increased representation on the board in the interviews. Furthermore, they specifically felt that the container scope was too narrow (glycol containers were frequently mentioned as a candidate to be added to the program) and the RI is low given the total costs of collection and processing.

UOMA board members expressed high satisfaction with current UOMA operations. Areas of interest to this group are the program management and results sections. They indicated a general desire to continuously improve the efficiency, effectiveness, and performance of the organization on the survey and during the interviews. Again, few issues were raised on the survey and during the interviews.

UOMA stakeholder Associations provided a wide range of responses with several of the responding stakeholder Associations having little practical knowledge of the UOMA program details. They generally expressed satisfaction with the program and placed the most importance in areas of management and results. They are especially pleased with their interactions with the UOMA organization. In many cases, stakeholder Associations were unclear regarding their own participatory role in UOMA. It is important to recognize that many responding stakeholder Associations may not have complete knowledge or interest in many of the topics covered by the survey thus their responses needs to be reviewed accordingly.

AUOMA's stakeholder responses illustrated in exhibit 6-2 are very similar to the overall UOMA responses and to the other provincial associations. Furthermore, no discernable differences were found when comparing AUOMA's stakeholder groups to their peers. Comments from AUOMA's stakeholders suggest a desire to expand program focus in areas such as stewardship, infrastructure, communication, increasing public awareness, regulation and tracking.

BCUOMA stakeholder results are illustrated in exhibit 6-3. Overall, BCUOMA stakeholders were highly satisfied with the program and their responses largely mirrored the points identified in the UOMA analysis. When BCUOMA stakeholder groups were compared to their peer groups, points of interest were found. BCUOMA board members placed less importance and were in less agreement to private industry self-sufficiency than board members of other provincial associations. General stakeholder comments expressed hesitancy regarding cross-province alignments.

BCUOMA collectors and processors were the strongest supporters that all used oil material collected should be delivered to a government-approved reprocessor or recycler. Both BCUOMA board members, and collectors and processors, were in less agreement than their peers regarding EHC and RI rates than other provincial groups. They also expressed their feelings that BCUOMA has had less impact regarding the effectiveness of the collection of used oil material in Western Canada than other stakeholder groups in other provinces. A major factor to consider regarding this response is that BCUOMA has only been a part of UOMA for six months and a previous program was already in place.

MARRC member responses illustrated in exhibit 6-4 were highly satisfied with the program. In contrast to BCUOMA, MARRC board members placed more importance upon private industry self-sufficiency than board members of other provincial associations. MARRC stakeholders expressed less agreement towards UOMA's primary focus being the collection of used oil materials. MARRC collectors and processors demonstrated less support for harmonization of provincial programs. Furthermore, MARRC collectors and processors appear to be especially satisfied with UOMA's management.

Exhibit 6-5 displays SARRC stakeholder responses to the 24-question survey. SARRC members were very satisfied with UOMA's principles, purpose, goals, management, and results. No discernable differences were found when comparing SARRC's stakeholder groups to their peers. Overall ratings were high with respect to satisfaction with interactions with UOMA's administrative staff.

Exhibit 6-1
Stakeholder Results - UOMA

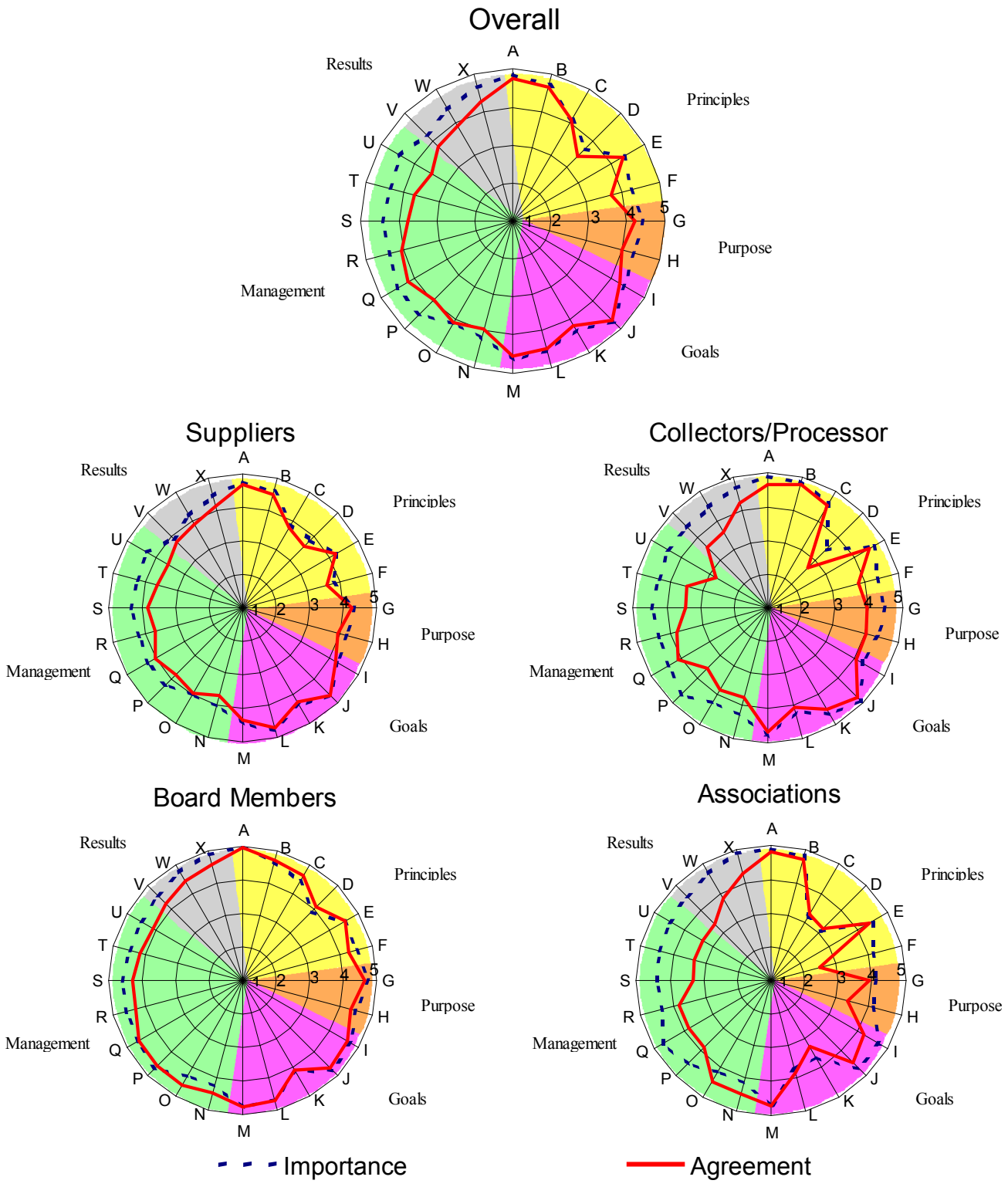


Exhibit 6-2
Stakeholder Results - AUOMA

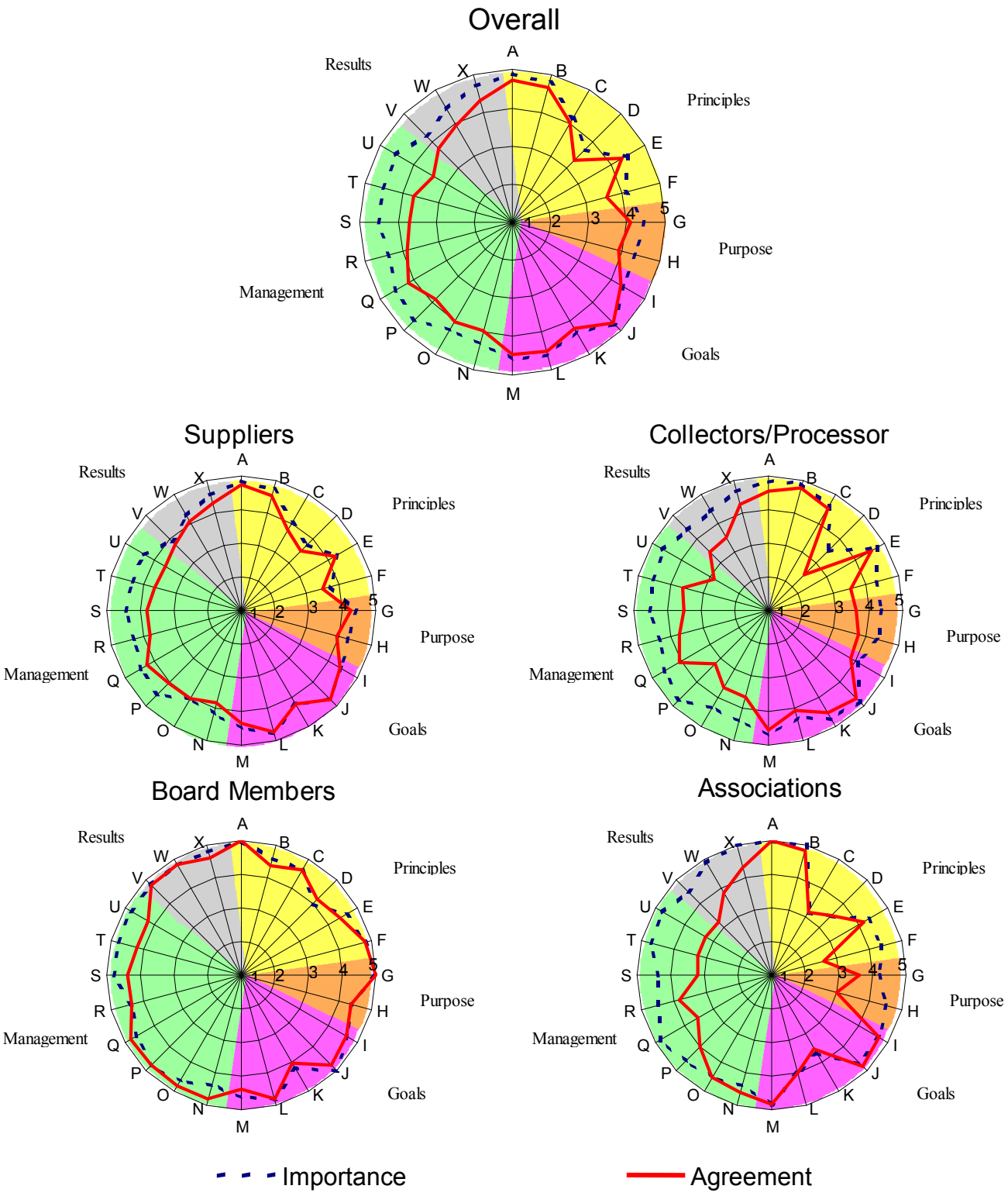


Exhibit 6-3
Stakeholder Results - BCUOMA

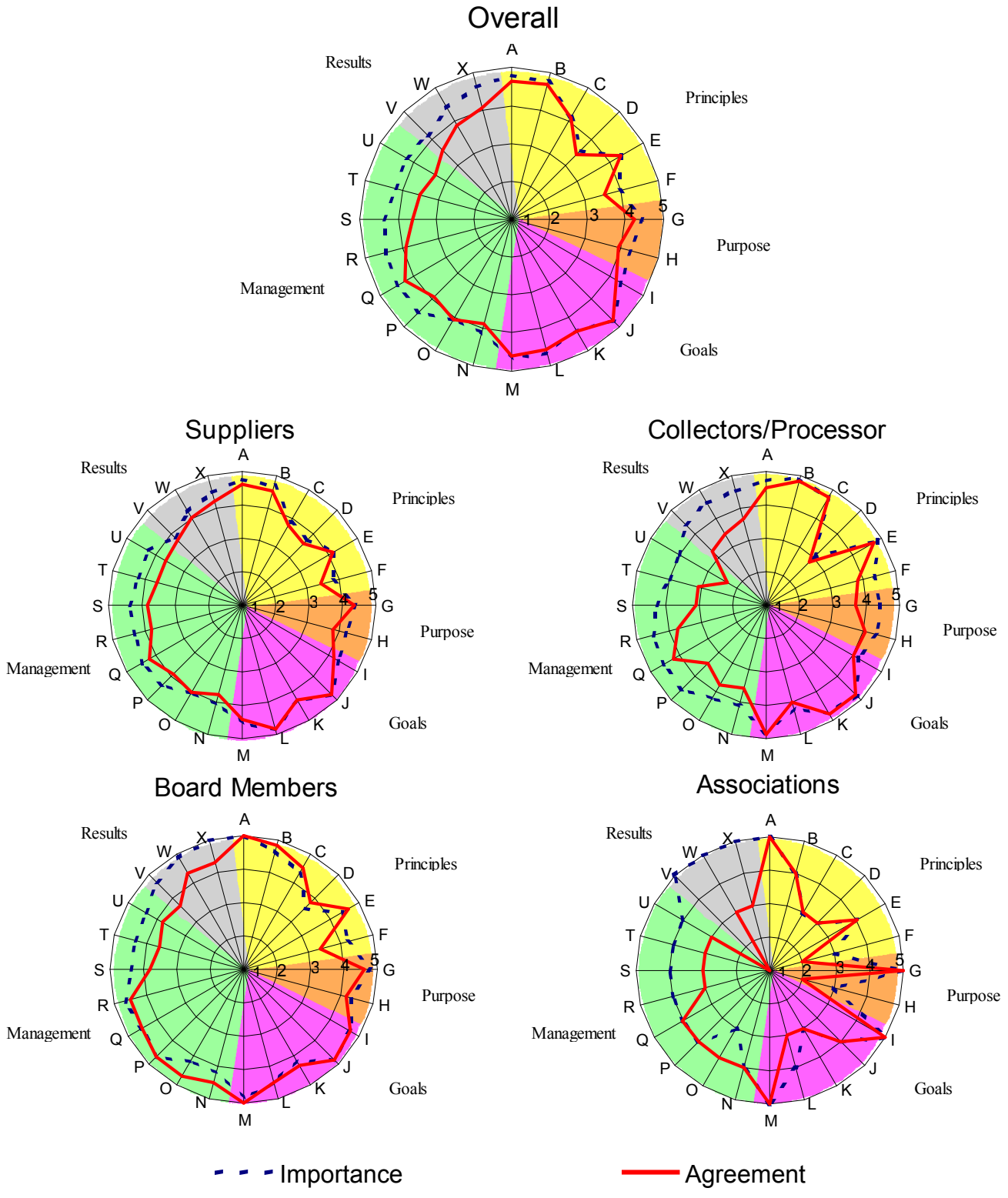


Exhibit 6-4
Stakeholder Results - MARRC

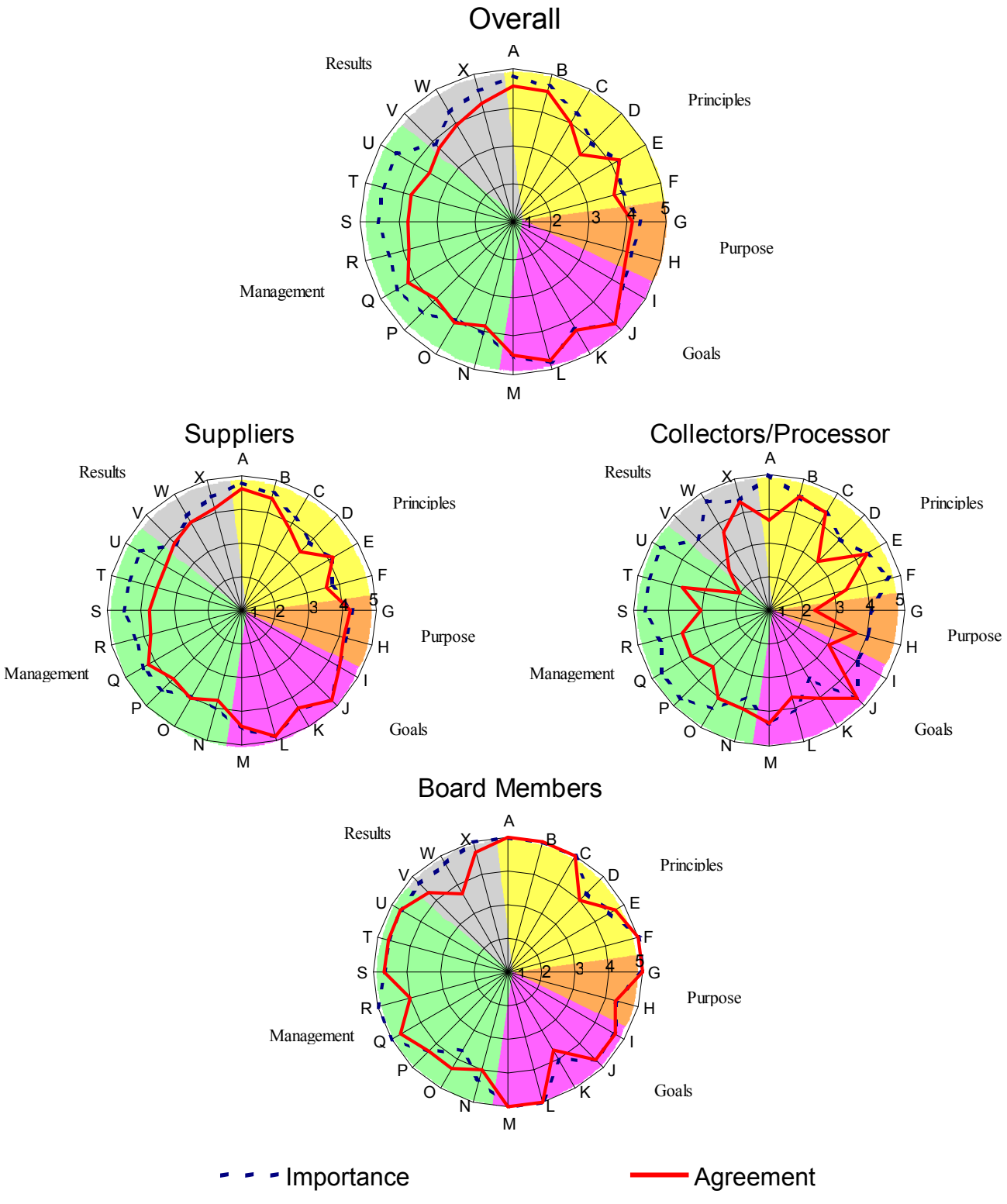
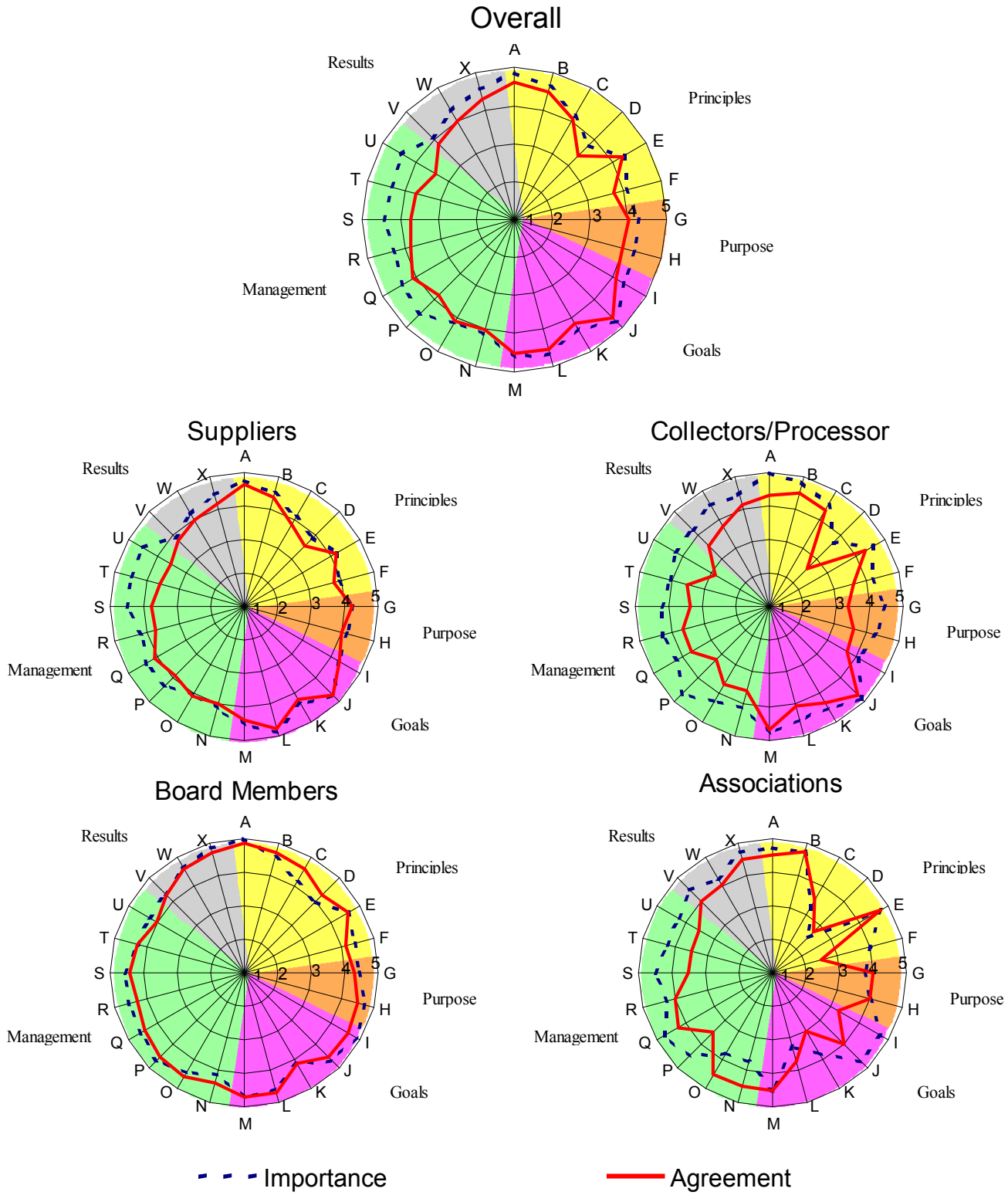


Exhibit 6-5
Stakeholder Results - SARRC



6.3 BENCHMARKING RESULTS

A major phase of the project was to benchmark UOMA's program against other used oil management programs. A list of 14 other used oil management programs was developed, and a set of 26 questions was designed to gain insight into five categories of program performance: program overview, results, end use, policy and program design.

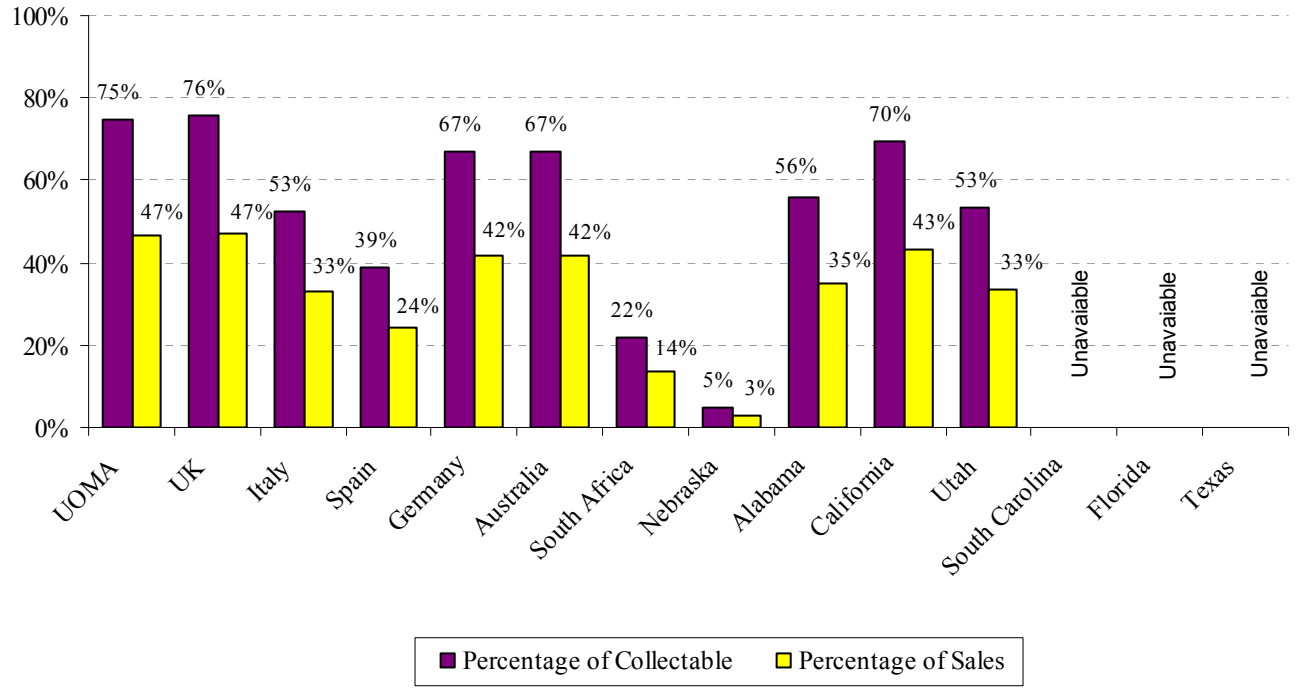
Overall, when compared to other used oil management programs, UOMA appears to be a leader. All benchmarked programs were found to have common themes, but each is somewhat unique. UOMA's areas of uniqueness include program design, collection rates, and compensation scheme. UOMA is a world leader in maximizing used oil collection rates (over 75%) and re-refining rates (over 30%). Collection rates for benchmarked programs and allocation of used oil to different end uses are illustrated in exhibits 6-6 and 6-7. Exhibit 6-8 displays UOMA's program design.

In most of the areas that the programs operate, used oil is viewed as a hazardous waste. Many of the programs emerged in response to legislated environmental concerns. All programs investigated but South Africa have legislated programs—South Africa's program is now funded exclusively by refiners. Out of 14 benchmarked programs, 11 have government-approved collectors and processors.

Benchmarking program scope identified only four out of the 14 benchmarked programs including UOMA collected used oil, filters, and containers. Of these programs, only three, including UOMA, recycle filters in an environmentally safe way. UOMA has outstanding oil filter collection rates (over 79%).

Generally, there are two types of used oil programs: 1) programs that focus on maximizing used oil collection and 2) programs that focus on re-refining. It appears that programs favouring collection have relatively high collection rates, but relatively low re-refining rates. Conversely, programs favouring re-refining have relatively low collection rates, but relatively high re-refining rates. UOMA's focus is on collection rather than end use. UOMA has attained outstanding collection rates for used oil materials.

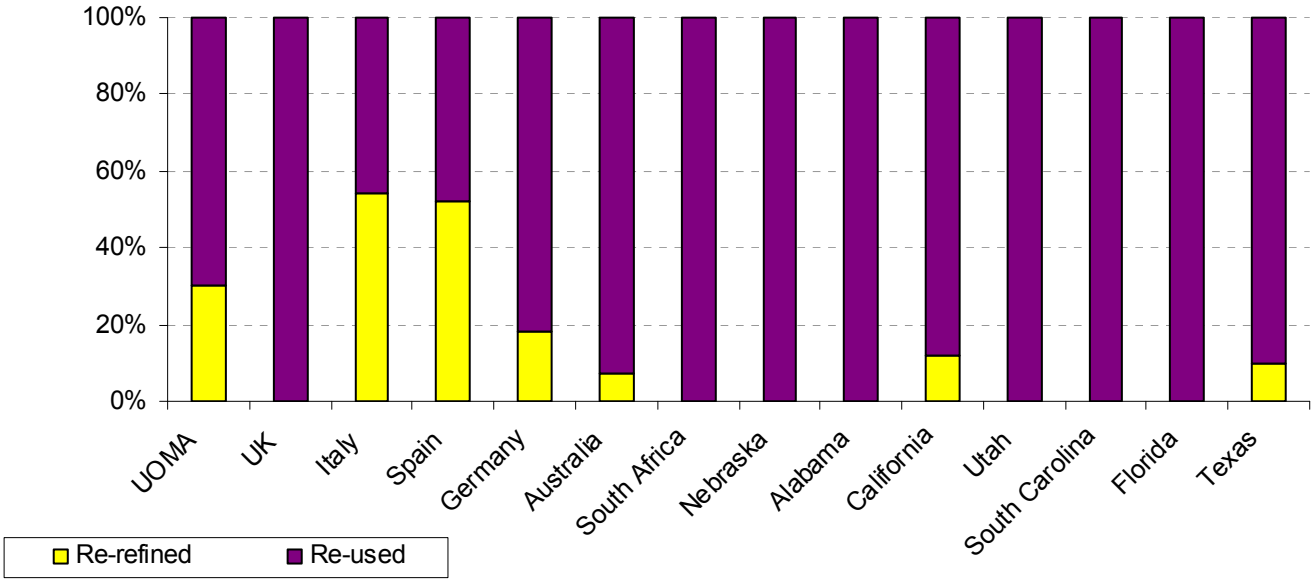
Exhibit 6-6
Percentages of Collection – Net and Gross



Re-refining versus re-using was a major focus of the benchmarking phase of the program review. For the purposes of this study, re-refining is defined as re-refining used oil into base oil as opposed to other end uses that grouped together and defined as re-use. The methods of end use for used oils are similar for all benchmarked programs and most benchmarked programs do not favour different re-use technologies. An exception is the Product Stewardship for Oil program in Australia who pays an incentive to processors based on the amount of processing undertaken.

Of interest is that about 30% of the used oil collected by UOMA is re-refined into base oil. With a high collection rate and a high percentage of used oil being re-refined, UOMA appears to contradict the statement that programs favouring collection have relatively high collection rates, but relatively low re-refining rates. The remainder of UOMA used oil is burned for energy recovery, or is processed for use as drilling oil or in asphalt for roads and highways. The most frequent end use among benchmarked programs is combustion of used oil for energy recovery. Some used oil programs found unique ways to facilitate used oil re-use. In California, the used oil is used as bunker fuel for ships at sea. In Florida, the used oil is used for phosphate beneficiation—phosphate binds with used oil, facilitating easier extraction.

Exhibit 6-6
Allocation – End Use



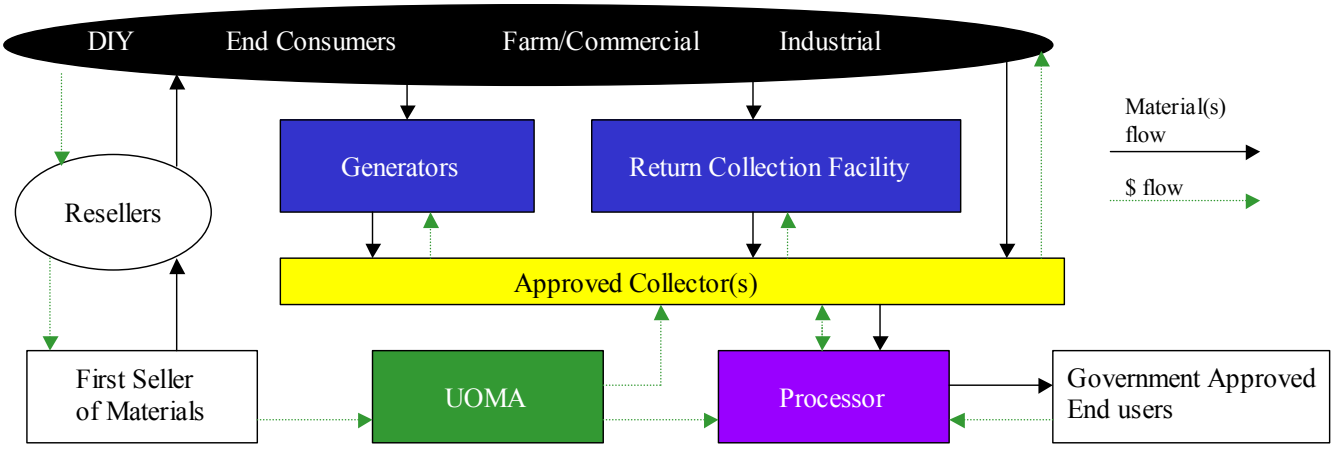
UOMA is a self-sustaining used oil program that is funded through an Environmental Handling Charge (EHC) on lubricating oil sales. UOMA's EHC of 5¢ per litre is slightly above the North American average of 4.5¢. However, UOMA's EHC is significantly below the average of 14.8¢ per litre for all benchmarked programs. In many cases, the used oil management programs only receive a small portion of the EHC collected. The EHC appears to be directed into a general fund with the used oil management program being funded on a grant or similar basis. Many of the European programs have a high EHC, which appears to reflect the high costs involved with focusing on re-refining used oil.

UOMA has a very unique program design. Aspects of design include generator, return collection facilities, collectors, and processors. The following definitions apply:

Generator	- The user of lubrication oil, filters and/or containers who through normal application of the products generates used oil materials.
Do-it-yourselfer (DIY)	- Consumers who purchase their own oil and service their own vehicles and equipment.
Return Collection Facility (RCF)	- A facility that agrees to receive used oil, filters or containers.
Collector	- A government-approved carrier that picks up used oil materials from Return Collection Facilities and/or Generators and delivers them to a Processor.
Processor	- A government-approved receiver of one or more used oil materials that processes these materials into saleable products.

The UOMA used oil collection process is illustrated in exhibit in exhibit 6-7. Before the creation of UOMA, generators and the do-it-yourselfer would collect used oil. Collectors would then collect from generators and charge them a fee to collect the used oil materials. In many cases, the do-it-yourselfer and sometimes the generator would refuse to pay collectors the pick-up fee and would dispose of the materials another way. The UOMA process was designed to remedy this situation yet keep the overall program cost neutral.

Exhibit 6-7
UOMA Design



UOMA was created to promote and facilitate the recovery of valuable, non-renewable resources. Using the EHC, UOMA pays the collectors a return incentive to collect the used oil, filters and containers from return collection facilities and generators. The total incentive approximately equals the EHC plus any fees that would have been paid previously for disposal. The intent is that under normal circumstances, incentives are set to allow the collectors to compensate the generators or return collection facilities and where applicable the processors. UOMA creates synergies between the return collection facilities, generators, and collectors, by creating a value chain that distributes the EHC among its stakeholders.

UOMA's RI varies from 8¢-17¢ per litre. The RI in the United Kingdom is 6¢ per litre. The USA RI averages 5.2¢ per litre. In Australia, processors are given incentives based on the amount of re-processing undertaken. In several State and European programs, generators, collectors, and return collection facilities profit by selling the used oil to re-processors. Re-processors will pay from 3.6¢ to 7¢ per litre of used oil.

Overall, when benchmarked against other global programs, UOMA appears to be the leading used oil management program in the world.

6.4 WESTERN CANADA PUBLIC SURVEY

Criterion Research Corporation (Ipsos Reid) conducted a public survey as the third phase of the project. A total of 2006 telephone interviews were conducted with randomly selected British Columbia, Alberta, Saskatchewan, and Manitoba households throughout October and November of 2004.

The Western Canadian Public Survey found that 40% of Western Canadian's were Do-It-Yourselfers (DIY). In order to qualify as a DIY, the respondent had to change his or her own oil at least once per year. A breakdown found that 32% of urban respondents were DIY while 52% or rural respondents were DIY. Alberta was found to have the most rural DIY, while Saskatchewan had the most urban DIY. Both urban and rural respondents from Saskatchewan were the only respondents who, on average, change the oil in their vehicle more than 4 times per year. The number of times respondents said they changed their oil per vehicle per year in Western Canada and for each province is illustrated in exhibit 6-8 while the number of DIY for both rural and urban areas for each province is illustrated in exhibit 6-9.

The Western Canadian Public Survey indicates that more people are recycling oil, filters, and containers in both urban and rural areas than ever before. Exhibits 6-10, 6-11, and 6-12 illustrate the public survey results for used oil, filter, and container recycling rates in each province. The public survey found that 82% of rural respondents and 74% of urban respondents recycled their oil. The benchmark found that UOMA's collection rate for used oil was 75%. About 49% of rural respondents and 54% of urban respondents said that they recycled their oil filters. UOMA recovers 79% of filters sold. In regards to containers, the public survey found that 73% of rural respondents and 69% of urban respondents recycled their oil containers. UOMA recovers 58% of containers sold.

Exhibit 6-8
Oil Changes per year per Vehicle

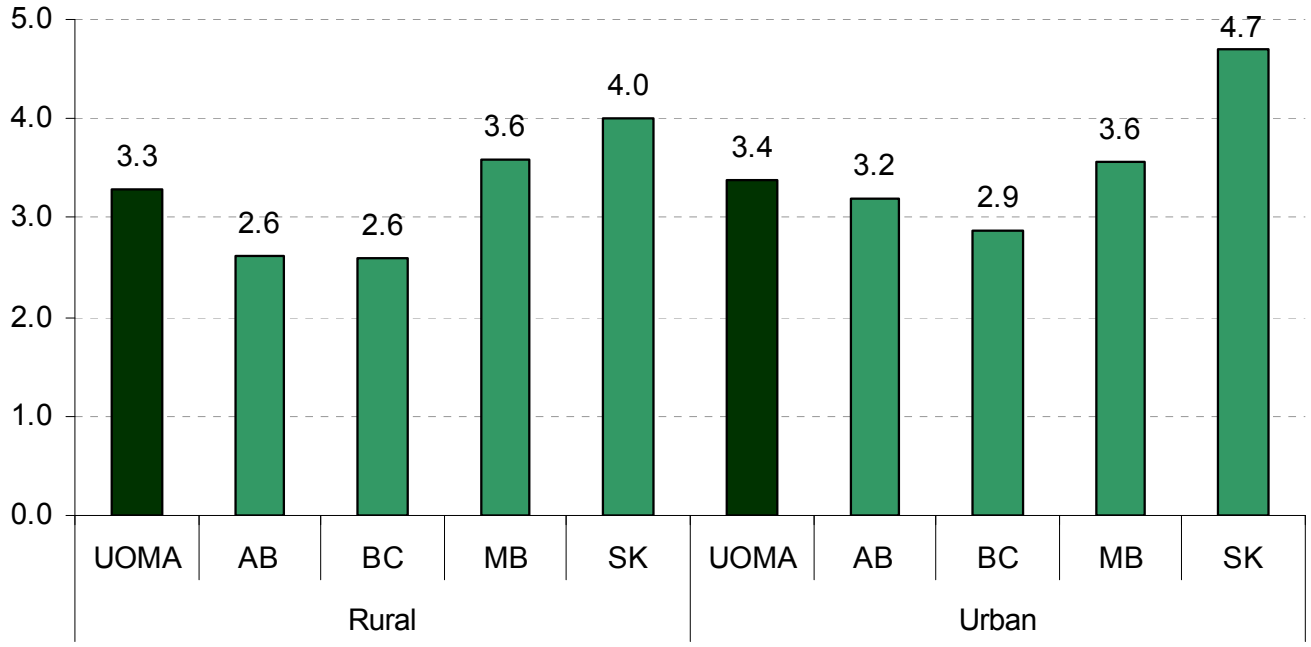


Exhibit 6-9
Do-it-Yourselfer Respondents

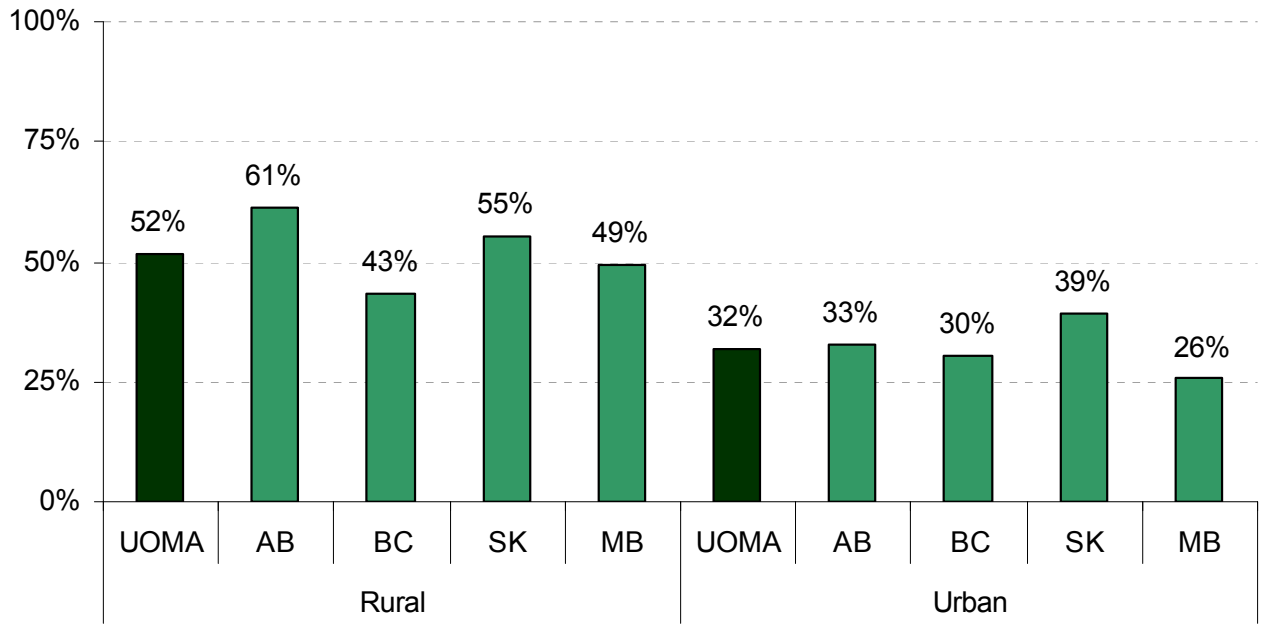


Exhibit 6-10
Recycling Rates – Used Oil

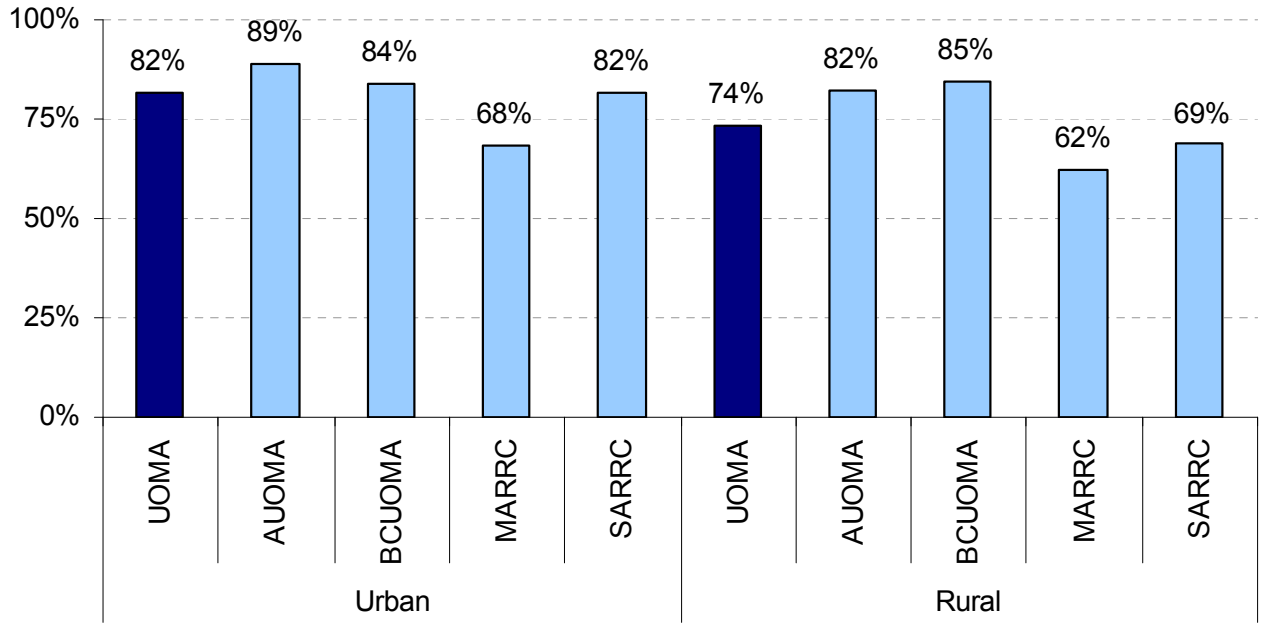


Exhibit 6-11
Recycling Rates – Filters

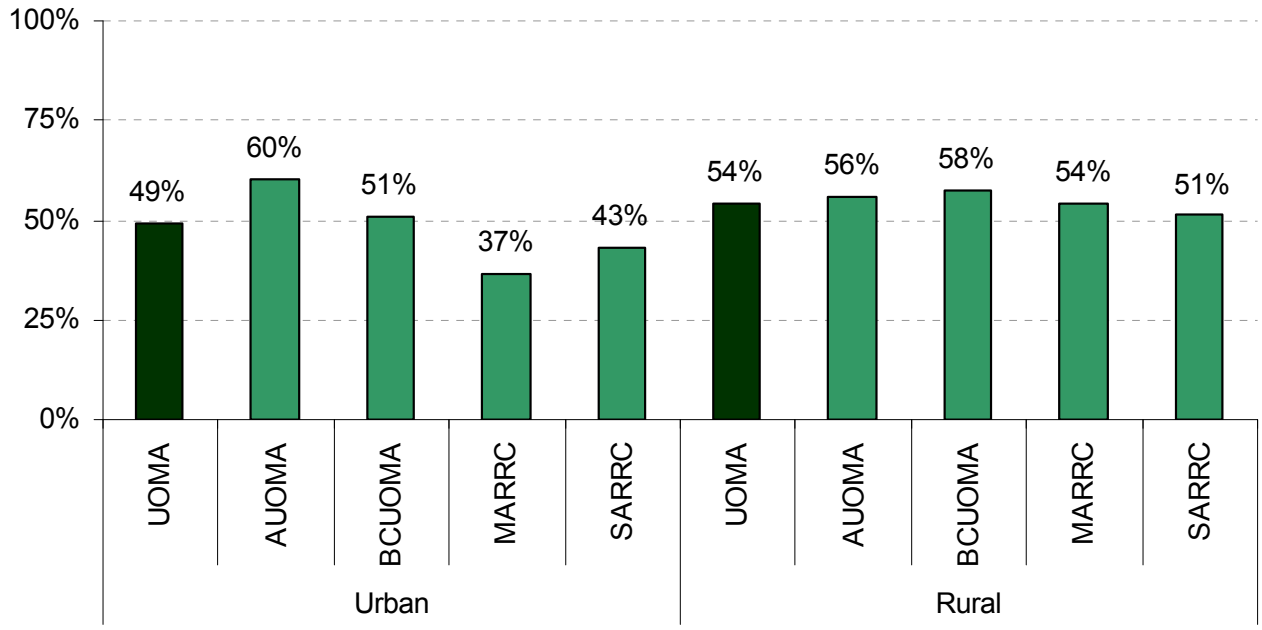
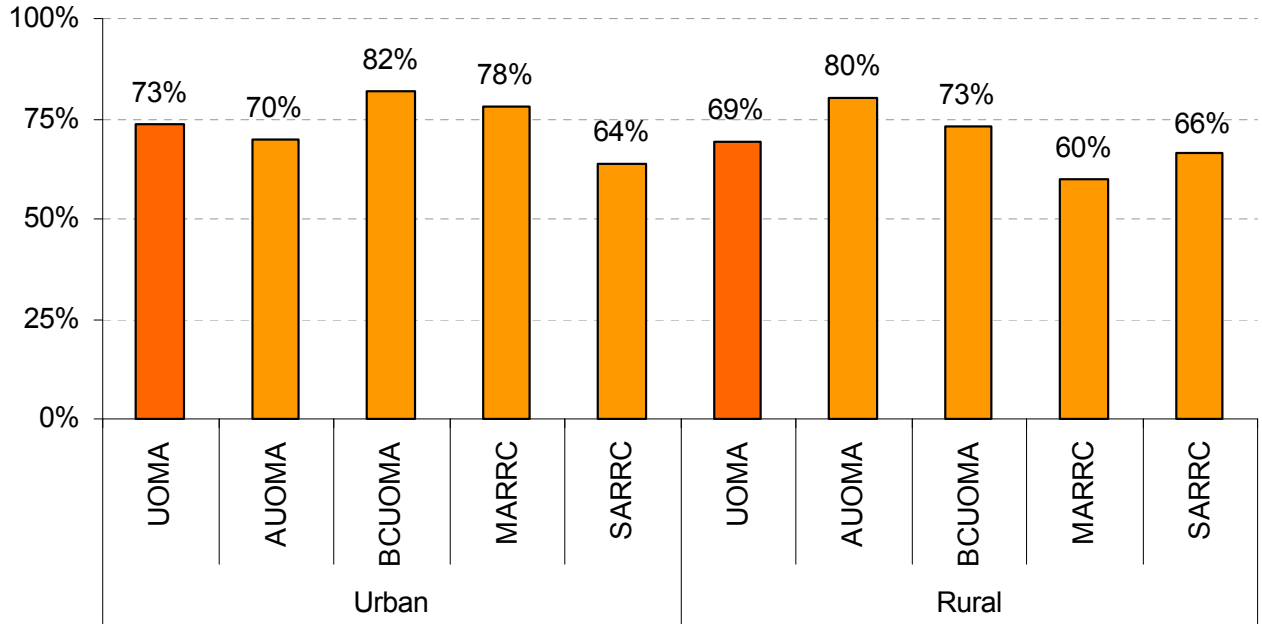


Exhibit 6-12
Recycling Rates – Containers



APPENDIX A

PROJECT CHARTER

APPENDIX A PROJECT CHARTER

1 PROJECT OBJECTIVES

The used oil recycling associations across western Canada consist of BCUOMA (British Columbia Used Oil Management Association), AUOMA (Alberta Used Oil Management Association), SARRC (Saskatchewan Association for Resource Recovery Corporation), and MARRC (Manitoba Association for Resource Recovery Corp). These are not-for-profit organizations, with a membership open to all wholesale suppliers (first sellers) of oil materials in each province, collectively referred to as the Used Oil Recycling Association (UOMA) for this project review. A multi-stakeholder Board of Directors manages each provincial association with representatives from industry, government and public interests.

More than 30 organizations representing the oil industry, automotive industry, retailers, consumers, recycling associations, environmental groups and government departments form the group which has been involved in and continues to support the implementation of each provincial program.

There are two broad groups of stakeholders across Western Canada. One group consists of collectors and processors who receive a return incentive (RI). There are approximately 160 organizations in this group including 12 large volume organizations. The other group consists of approximately 200 suppliers that sell oil, oil filters, and remit the environmental handling charge (EHC) to UOMA.

The objective of this work is to perform a formal review of the existing used oil recycling program as conducted through stakeholder surveys and interviews, as well as benchmarking against comparable North American programs. The review will be undertaken from a program perspective in the four Western Canadian provinces as well as an overall Canadian –program perspective.

2 WORKPLAN

The program review will be conducted through a five-phase approach. The phases include project initiation, stakeholder survey, public survey, benchmarking initiative and development of a final report.

2.1 PHASE ONE—INITIATE THE PROJECT

Project initiation is where the project charter is finalized, detailing the project objectives, workplan, deliverables, timing and logistics. The survey and interview protocols for both the stakeholder groups along with an outline of the benchmarking initiative of the review will be developed. At this point in time, the scope of work will also be defined and the contract for consulting services for this engagement will be executed.

Through a series of draft reviews, using primarily conference calls and email correspondence, the survey and interview protocols with representatives from each of the four associations will be developed. The survey and interview protocols will be designed concurrently with an evaluation methodology that follows the "decision process map checklist" that has already been established to ensure the overall integrity of the process. The evaluation will be customized as per the protocols but the rigor of the checklist will be adhered to.

It is proposed that the survey and interview protocol consist of approximately 25 questions to ensure it is manageable and user friendly as possible for the registrants and recyclers. The deliverable of this phase will be the completed survey and interview protocols along with the evaluation methodology.

2.2 PHASE TWO—CONDUCT STAKEHOLDER SURVEY

The stakeholder survey is the second phase of the project. Using technology to simplify this process for stakeholders as much as possible, a stakeholder survey website will be developed and the survey conducted by providing members the website address and password as part of a communication letter from the association that introduces and describes the review. The website approach will enable more efficient processing and consolidation of the results as well as being much more "user-friendly" for members. For those stakeholders that do not have access to the Internet, a paper copy of the survey will be provided.

Once the web surveys and phone interviews are completed, the results will be consolidated into a spreadsheet format and the results will be analyzed using the evaluation methodology developed in Phase One.

This phase also includes approximately thirty telephone interviews for all provinces with a selection of your stakeholders. It is recommended that interviews occur with a sample of 10 collectors/processors, 10 suppliers as well as environmental and retailer organizations and the members of the associations' Board of Directors. The deliverable of this phase will be consolidated survey and interview results.

2.3 PHASE THREE—CONDUCT PUBLIC SURVEY

The third phase of the project is to develop a public survey. The public survey is designed to gain information regarding public behaviours regarding oil, filter and container consumption along with perception of used oil, filter and container recycling results to date.

The survey is proposed to be conducted as part of an "Omnibus" survey by Ipsos Reid or comparable survey firm. The survey will be administered in a statistically representative sample of both urban and rural in the four provinces to gain an understanding of the influence of geography on public behaviours and perceptions.

The actual costs of the third party firm conducting the survey will be in addition to BearingPoint's fees while the analysis of this data is included in BearingPoint's original quote.

The specific questions we will ask the public are:

- What is the number of household vehicles?
- What is the number of oil changes per year?
- Who changes the oil—self versus commercial?
- Is the oil, filter or container recycled?
- What is the person's level of satisfaction regarding how the recycling of used oil materials is managed?

2.4 PHASE FOUR—BENCHMARK COMPARABLE PROGRAMS

The fourth phase of the project involves benchmarking comparable programs. This will occur by attempting to identify a minimum of five and a maximum of ten comparable petroleum-recycling programs with the associations' assistance, with a focus in North America, to compare to the four western Canadian programs. The focus of the benchmarking will be on the overall program strategy (the program principals or "why"), the program process and structure (the program logistics or "how the program works"), and on the program results compared to the mandate of each respective program.

Once willing participants have been identified and qualified, a review protocol will be developed along with an analysis methodology. Specific program elements will be compared across all programs to ensure the comparison is unbiased. The deliverable of this phase will be consolidating benchmark results.

2.5 PHASE FIVE—DEVELOP AND PRESENT FINAL REPORT

The final project phase consists of the compilation and analysis of the findings along with our conclusions based upon the results. The results of the surveys in Phase Two and Phase Three based upon the evaluation methodology and the findings of the benchmarking initiative in Phase Four will be combined. This will help to identify strengths, weaknesses, opportunities and challenges of the program along with our perspectives regarding the overall findings. The final deliverable will be the development of a presentation style draft and final reports including results broken out by stakeholder group and by province.

3 DELIVERABLES

The scope of Phase One includes:

- Determination of survey and interview objectives

  Overall, the survey and interviews will focus on assessing UOMA programming from a stakeholder perspective in the following five key areas:

  – Principles.

  – Purpose.

  – Goals.

  – Management.

  – Results.

- Development of specific stakeholder survey and interview questions

  Following from these areas of focus, appropriate survey and interview questions will be developed to assess stakeholders' view of program relevance, expectations, and perceived effectiveness.

  There will be two components to each statement for the respondent to provide his/her rating. The first score is an importance rating – how important a particular program characteristic is to used oil management in Western Canada. A second component, the satisfaction rating, asks respondents to agree or disagree to statements regarding their perception of used oil management in Western Canada. Please see Appendix A for a diagram of how the survey questions fit into the above framework.

- Identification of stakeholder groups

  Interviews: More than 30 organizations representing the oil industry, automotive industry, retailers, consumers, recycling associations, environmental groups and government departments form the stakeholders group.

  For the interview portion of the survey, first sellers, collectors/processors, environmental and retailer organizations, and board members will participate.

  – Online Surveys: The online survey will be administered based upon the geographic location of each stakeholder (e.g. each participant will be coded by geographic location thus the analysis can be conducted by province understanding the many stakeholders operate in more than one province.).

  Overall, this will enable an easier rollup of information and serve to provide more valuable analysis.

- Determination of the target number of interviews and surveys to be conducted by stakeholder group

  Approximately thirty telephone interviews will occur with a random selection of stakeholders. It is recommended that interviews occur with a sample of 10 collectors/processors, 10 suppliers as well as the members of the respective Board of Directors along with environmental and retailer associations.

  The online surveys will be administered to all first sellers, collectors/processors, environmental and retailer associations, and board members – numbering approximately 300 individual respondents, to ensure comprehensive representation in the results.

- Development of the evaluation methodology

  Given the complexity of presenting the collected survey data, we will be analyzing the importance and satisfaction components of the surveys separately to maintain the integrity of the information and then looking at that data in context. The analysis of the importance and satisfaction ratings has three main components:

  – The first element is the importance rating per question. The ratings will be scored on a 1 to 5 scale so this information will be used to determine an average importance rating for each of the stakeholder groups (registrants, /processors, environmental and retailer organizations, and board members) for each question. Upon plotting this information on a radar chart, will be able to visually identify trends as to where each stakeholder group places importance on different elements of used oil recycling in Western Canada.

  – Once collected and plotted, the second analysis to be performed will be investigating the gaps between the groups in their average ratings. This will serve to demonstrate alignment or divergence by the stakeholders on a per question basis. Once again, plotting the data for each stakeholder group on a radar chart will enable easy identification of variance among stakeholder groups. Our evaluation charting methodology is illustrated in exhibits 1 and 2.

  – A similar analysis will be performed on the data obtained from the satisfaction component of the survey for each question. Once again, an average satisfaction rating per stakeholder group per question will be determined to measure the variance of average responses of the groups to each statement concerning used oil recycling in Western Canada.

  – The final step of the analysis is to take the two average ratings (importance and satisfaction) per question for each stakeholder group, and identify the variance between those elements. Overall, this will provide a sense of the level satisfaction that the stakeholders exhibit on those components that they rated highest in importance. The more importance a respondent places on a particular area, the more weighting that element has on their satisfaction of the program as a whole - therefore, it is ideal to achieve high satisfaction scores on those areas rated with high importance. Given this, such an analysis will enable identification of areas where the program is currently falling short of expectations and may suggest a shift of resources to increase satisfaction scores on those elements that are deemed most important.

  – The final survey and interview results will be consolidated for review and analysis.

Exhibit 1
Importance Ratings by Stakeholder Group by Question *

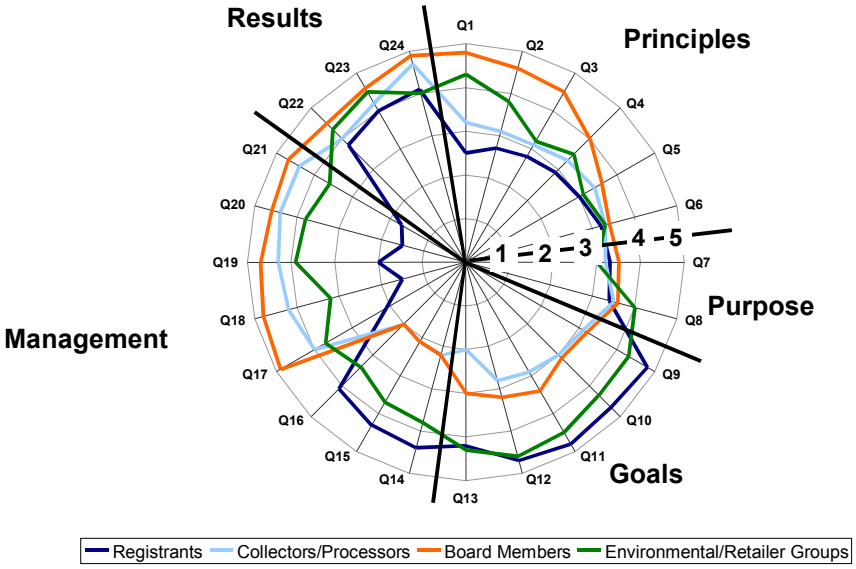
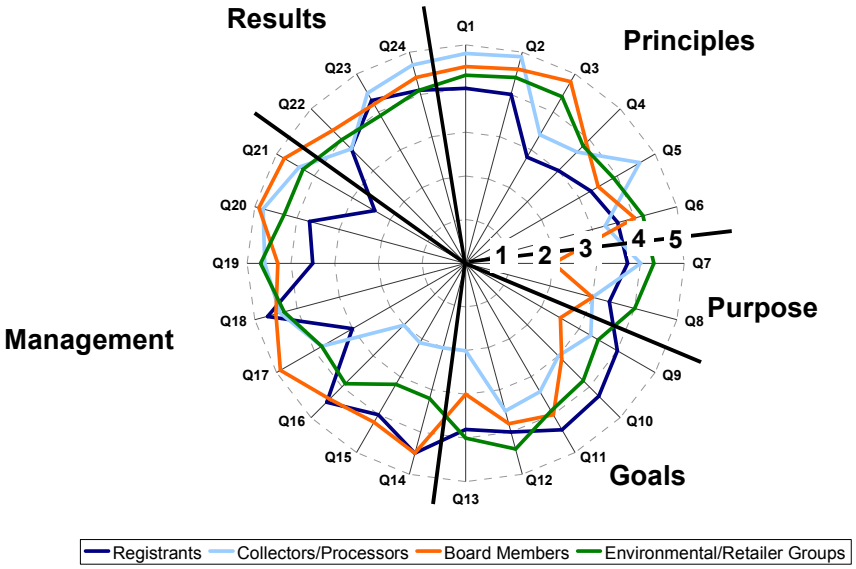


Exhibit 2
Satisfaction Ratings by Stakeholder Group by Question *



Please note that the above charts contain fictional data for illustrative purposes only.

- Development of public survey questions

  The public survey is designed to gain information regarding public behaviours regarding oil, filter and container consumption along with perception of used oil, filter and container recycling results to date.

  The survey is designed to measure behaviours by geographic region with a statistically representative sample of both urban and rural in the four provinces to gain an understanding of the relative public behaviours and perceptions.

  The results of the public survey, specifically the satisfaction of the overall used oil recycling program, will be compared to the results of the stakeholder survey to measure alignment between the public and the various stakeholders on a geographic basis.

  Please see Appendix B for the proposed public survey questions.

- Development of the public survey evaluation methodology

  The public survey will provide current information on public behavior regarding recycling oil, filters and containers.

  Given the complexity of presenting the collected survey data, we will be analyzing the importance and satisfaction components of the surveys separately to maintain the integrity of the information and then looking at that data in context of the associated attributes (demographics, geography, etc).

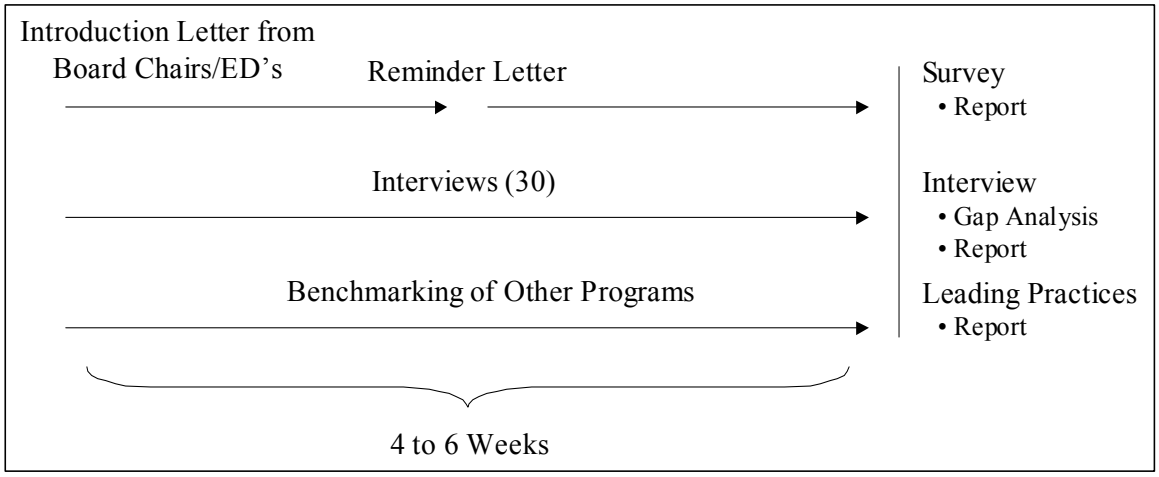
4 TIMING AND LOGISTICS

Upon securing the list of registrants, collectors/processors, environmental and retailer organizations, and board members; each will be assigned a registration code to be used to access the survey. Working with the Executive Director of each Provincial association, an initial communications letter would be prepared and distributed in both hard copy and electronic form to each participant. This would occur in a timely manner to ensure that they are provided with a reasonable amount of time to complete the survey. A second follow-up letter and email will serve to remind registrants to complete the survey if they have not already done so.

During the administration of the online surveys, the telephone interviews will be conducted simultaneously. Initial responses will be consolidated and draft results will be available within four weeks. Further, while the stakeholder surveys and interviews are being conducted, Phase Four benchmarking of comparable programs will also be performed. Overall, these processes should require four to six weeks to complete and will be largely driven by the degree of stakeholder response. The public survey will be conducted as part of an Ipsos Reid Omnibus surveys but every effort will be made for a timely administration of this survey.

The timeline for Phase Two and Four of the project is illustrated in exhibit 3. The timeline for Phase Three is to be determined.

Exhibit 3
Phase Two and Four Timeline



APPENDIX B

STAKEHOLDER SURVEY

APPENDIX B STAKEHOLDER SURVEY

UOMA SURVEY

Thank you for participating in the Used Oil Management Association (UOMA) Survey. Your feedback will help UOMA to continually enhance our programs.

Survey Instructions

This survey consists of 24 statements with two questions regarding each statement—an importance question and an agreement question. We then conclude the survey with two open-ended questions where we ask for comments on any of the statements where there is disagreement as well as your overall comments.

1A. Importance Rating:

For each question, please indicate how important the statement is to you on a 5-point scale where 1 means you consider that statement to be not at all important, and 5 means you consider the statement to be extremely important. Please select and circle the value from the list provided.

1B. Agreement Rating:

For each question, please indicate how strongly you agree with the statement. Would you say that you strongly agree, agree, neither agree nor disagree, disagree, or strongly disagree? Please select the most appropriate response.

Not all items may be applicable to you. Please respond to only those items you feel are appropriate. Please **CIRCLE** the most appropriate importance and agreement rating for each statement.

An example is as follows:

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement A
Used oil and related materials should be collected and removed from the waste stream.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement B
Used oil and related materials, once collected, should be reprocessed or recycled.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement C
Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement D
Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement E
All used oil material collected should be delivered to a government-approved reprocessor or recycler.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement F
Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement G
UOMA's primary focus should be on the collection of used oil materials from the waste stream.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement H
I understand that my participation in UOMA activities helps the organizations' achieve used oil material recovery in Western Canada.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement I
UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement J
UOMA should ensure the administration of programs is performed in a cost effective manner.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement K
A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement L
The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement M
UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement N
Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement O
On the whole, my experience with UOMA administrative staff has been positive.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement P

UOMA appears to be fair and consistent in its administration of the used oil management program.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement Q
A board that incorporates stakeholders' interests directs UOMA's operations.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement R
It is clear how I can communicate my concerns with UOMA.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement S
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement T
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement U
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement V
Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement W

UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

Statement X

Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

1. In your opinion, how important is the characteristic described in the above statement? Circle the most appropriate rating.

Not at all important	Somewhat unimportant	Neither unimportant nor important	Somewhat important	Extremely important

2. What is your agreement with the above statement? Circle the most appropriate rating.

Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree

How can UOMA improve its programs and/or administrative operations? If you scored your agreement with any of the statements at a 2 or lower, please provide details to explain why you disagree.

Additional comments?

APPENDIX C

STAKEHOLDER INTERVIEW PROTOCOL

APPENDIX C STAKEHOLDER INTERVIEW PROTOCOL

Statement A
Used oil and related materials should be collected and removed from the waste stream.

Would you agree that such products as used oil and related materials should be removed from the waste stream? How strong is your agreement?

How important, would you say, is the collection and removal of these materials from the waste stream? Why do you feel that this is of (as high/as medium/as low) of an importance?

Statement B
Used oil and related materials, once collected, should be reprocessed or recycled.

How much do you agree that once used oil and related materials are collected, they should be reprocessed or recycled?

How important is this further reprocessing and recycling of these materials? Why do you think so?

Statement C
Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

Do you agree that private industry should be the ones responsible for collecting and reprocessing or recycling used oil materials? How strongly do you agree?

How important do you believe placing/not placing this responsibility on private industry to be?

Statement D

Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

Would you say that private industry should be self-sufficient in collecting and reprocessing or recycling of used oil materials, without program support? How come?

How important would you say this issue is?

Statement E

All used oil material collected should be delivered to a government-approved reprocessor or recycler.

Should only government-approved reprocessors or recyclers receive used oil materials?

How important do you find government approval to be for reprocessors and recyclers?

Statement F

Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

How much do you agree that return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies. Why do you believe so?

Statement G
UOMA's primary focus should be on the collection of used oil materials from the waste stream.

How strongly do you agree or disagree that UOMA's primary focus should be on the collection of used oil materials from the waste stream? How come?

What other issue should be UOMA's primary focus?

Statement H
I understand that my participation in UOMA activities helps the organizations' achieve used oil material recovery in Western Canada.

Do you see your participation in UOMA activities as helping the organization achieve used oil material recover in Western Canada?

Statement I
UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

Should the UOMA make public education and information a priority, so to continue to improve the rate of used oil material recovery in Western Canada? Why do you agree/disagree?

How important do you think UOMA raising public knowledge of used oil material recovery in Western Canada to be?

Statement J
UOMA should ensure the administration of programs is performed in a cost effective manner.

Should the UOMA ensure that the administration of programs is performed in a cost effective manner? Why do you agree/disagree?

How important the UOMA's role in this function?

Statement L

The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

Do you agree that the used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba should work towards having programs that are consistent with each other? Why?

How important is a consistent used oil management program across the provinces?

Statement M

UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

Do you agree that UOMA should continue to work with their partners toward increasing the used oil material recovery rate? Why?

How important do you see an increased used oil recovery rate as being? Why?

Statement N

Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

Have you contacted the UOMA administrative staff with inquiries?

Where your inquiries answered in a satisfactory manner?

Statement O

On the whole, my experience with UOMA administrative staff has been positive.

On the whole, would you say that your experience with the UOMA administrative staff has been positive?

Could you share an instance when your experience with the UOMA administrative staff was positive/negative?

Statement P
UOMA appears to be fair and consistent in its administration of the used oil management program.

Would you say that the UOMA is fair and consistent in its administration of the used oil management program? How strongly do you agree/disagree?

How important do you believe the consistent and fair administration of the used oil management program to be?

Statement Q
A board that incorporates stakeholders' interests directs UOMA's operations.

Would you say that UOMA operations are directed by a board that incorporates stakeholders' interests?
If not: Who would you say directs UOMA's operations?

Is the directing of operations by such a board important, and if so, how important do you believe it to be?

Statement R
It is clear how I can communicate my concerns with UOMA.

Should you have any concerns with UOMA, do you find that there exists a simple and clear manner in which to communicate them?

Statement S
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.
Statement T
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.
Statement U
UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Do you find UOMA's Environmental Handling Charges (EHC) and Return Incentives(RI) for used oil to be reasonable?

How about the charges for oil filters, are those reasonable?

How about those for oil containers?

Do you see reasonable charges for used oil as being important, why?
Are these reasons different than those for filters and containers?

If so, why are reasonable charges for oil filters important? How about those for oil containers?

Oil Filters:

Containers:

Statement V

Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

Has the UOMA increased your awareness of the importance of recovery of used oil materials in an environmentally sound manner?

How important is such an awareness to you and your business?

Statement W

UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

Do you believe that UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada?

How important do you believe this function of the UOMA to be?

Statement X

Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

Overall, have UOMA's programs improved the collection of used oil materials in Western Canada?

Examples?

How important is the UOMA's role in the collection of used oil materials in Western Canada?

In your opinion, how can UOMA improve its programs and/or administrative operations?

Do you have additional comments regarding the UOMA or its operations?

APPENDIX D

PUBLIC SURVEY

APPENDIX D PUBLIC SURVEY

Used Oil Awareness and Perceptions

- Quantitative Summary –

- *A total of 2006 random interviews were conducted with heads of households in British Columbia, Alberta, Saskatchewan and Manitoba.*
- *The interviews were conducted as part of omnibus surveys in each province. Omnibus surveys include questions asked on behalf of a number of different organizations.*

Presented to: Used Oil Management Association
Presented by: Criterion Research Corp.
Date: February 2005

TABLE OF CONTENTS

TABLE OF CONTENTS Cont'd

1 BACKGROUND AND INTRODUCTION

Used Oil Management Association commissioned Criterion Research Corp. to conducted awareness and perception analysis with residents of British Columbia, Alberta, Saskatchewan and Manitoba. Omnibus Surveys were conducted with market research organizations in each province.

The survey instrument, including all questions and demographics are included in Appendix A. Computer tables showing all responses to these questions are included in Appendix B.

2 METHODOLOGY

2.1 DATA COLLECTION

British Columbia
A total of 500 telephone interviews were conducted with the head or joint head of household in randomly selected British Columbia households between November 30th and December 8th, 2004.
Interviews were conducted in:

- City of Vancouver;
- Other areas of Greater Vancouver Regional District;
- The Capital region;
- South Coast / Island;
- North Coast / Interior; and
- Southern interior.

Upon the completion of data collection, the data was weighted to reflect the actual regional distribution of population in British Columbia.

Alberta
A total of 500 telephone interviews were conducted with the head or joint head of household in randomly selected Alberta households between October 22nd and November 1st, 2004.
Quota sampling was used to achieve 125 interviews in each area:

- Edmonton metropolitan area;
- Calgary metropolitan area;
- Other cities; and
- Towns and rural areas.

Upon the completion of data collection, the data was weighted to reflect the actual regional distribution of population in the area.

Saskatchewan
A total of 503 telephone interviews were conducted with the head or joint head of household in randomly selected Alberta households between November 9th and November 17th, 2004. Interviews were conducted in:

- Regina;
- Saskatoon; and
- Rural Saskatchewan.

Interviews were quota sampled to provide accurate regional representation.

Manitoba
A total of 503 telephone interviews were conducted with the head or joint head of household in randomly selected Manitoba households between November 8th and November 17th, 2004.
Interviews were conducted in:

- Winnipeg; and
- Other areas of Manitoba.

Interviews were quota sampled to provide accurate regional representation.

2.2 DATA ANALYSIS

To evaluate differences or similarities in responses between different subsets of the population, the results for each question have been cross-tabulated by the following variables in the computer tables:

- Gender
- Age of respondent
- Education level
- Household income

2.3 STATISTICAL RELIABILITY

For a given sample size, it is possible to set what are called confidence bounds or limits around an observed percentage and assert that such limits are correct 95 percent of the time (for example). These confidence limits are valuable indicators of the reliability of observed results. When interpreting data, confidence limits should always be kept in mind because these limits can vary dramatically depending on the sample size. A table of these confidence limits is located in Appendix C. Such tables do not provide any indicator of whether an observed percentage is meaningful, as that depends upon the context and the interpretation that will be made.

Results for a sample size of 500 are accurate to within ±4.4 percentage points, 19 times out of 20.

3 ANALYSIS OF FINDINGS

3.1 VEHICLES PER HOUSEHOLD (TABLE 1)

All respondents were asked to indicate how many vehicles they have in their household.

Table 1: Vehicles per Household (Q. 1)

All Respondents	**British Columbia (N=500)**	**Alberta (N=500)**	**Saskatchewan (N=503)**	**Manitoba (N=503)**
No vehicles	10%	6%	8%	9%
1 vehicle	35%	30%	29%	36%
2 vehicles	38%	39%	43%	42%
3 vehicles	11%	16%	12%	8%
4 or more vehicles	6%	8%	7%	5%
MEAN	**1.73 vehicles**	**2.01 vehicles**	**1.86 vehicles**	**1.66 vehicles**

** Less than 1%*

Provincial Differences

- The incidence of having a **one-vehicle household** is **higher** in **British Columbia** (35%) and **Manitoba** (36%) than in Alberta (30%) or Saskatchewan (29%).
- Compared to British Columbia residents (38%), a **higher proportion** of **Saskatchewan** residents (43%) have **two vehicles** in their household.
- A **higher proportion** of **Alberta** residents (16%) mention having **three vehicles** in their household compared to British Columbia (11%) and Manitoba (8%) residents.

3.1.1 BRITISH COLUMBIA

British Columbia households have an average of 1.73 vehicles.

Thirty eight percent (38%) of British Columbia households indicate they have two vehicles in their household followed by 35% who mention they have one vehicle. Lower proportions mention having three (11%) and four or more (6%) vehicles in their household. One in ten (10%) British Columbia households do not have a vehicle.

British Columbia Regional Differences

- A **higher proportion** of residents in **major urban centers** of British Columbia (Greater Vancouver Regional District and Victoria) (13%) report having a **no vehicle** household compared to residents in other areas of the province (5%). Correspondingly, a **lower proportion major urban** British Columbia residents (34%) report having **two vehicles** in their household compared residents in other areas of the province (43%).

3.1.2 ALBERTA

Alberta households have an average of 2.01 vehicles.

Four in ten (39%) Alberta households indicate they have two vehicles in their household followed by 30% who mention they have one vehicle. Lower proportions mention having three (16%) and four or more (8%) vehicles in their household. Six percent (6%) of Albertan households do not have a vehicle.

Alberta Regional Differences

- Compared to all other regions, a **higher proportion** of those residing in **greater Calgary** mention having no household vehicles (14% Calgary vs. 2% to 3% all other regions) and three household vehicles (25% Calgary vs. 14% to 16% all other regions).

- A **higher proportion** of those residing in **major urban Alberta centres** (Edmonton- 34% and Calgary- 35%) indicate they have one household vehicle compared to those in other areas of Alberta (other cities- 23% and towns / rural- 22%).

- Compared to all other Alberta regions, a **higher proportion** of those residing in **smaller Alberta cities** indicate they have three vehicles in their household (25% other cities vs. 14% to 16% all other regions).

- Compared to all other Alberta regions, a **higher proportion** of those residing in **rural areas and towns** indicate they four or more vehicles (16% rural / towns vs. 5% to 7% all other regions).

3.1.3 SASKATCHEWAN

Saskatchewan households have an average of 1.86 vehicles.

Forty three percent (43%) of Saskatchewan households indicate they have two vehicles in their household followed by 29% who mention they have one vehicle. Lower proportions

mention having three (12%) and four or more (7%) vehicles in their household. One in ten (8%) Saskatchewan households do not have a vehicle.

3.1.4 MANITOBA

Manitoba households have an average of 1.66 vehicles.

Forty two percent (42%) of Manitoba households indicate they have two vehicles in their household followed by 36% who mention they have one vehicle. Lower proportions mention having three (8%) and four or more (5%) vehicles in their household. One in ten (9%) Saskatchewan households do not have a vehicle.

Manitoba Regional Differences

- Compared to rural areas of Manitoba, a **higher proportion** of respondents in **urban areas of Manitoba** report having **no vehicles** (13% vs. 4% rural) and one vehicle (41% vs. 28% rural) in their household compared to residents in rural areas of Manitoba. Correspondingly, a **higher proportion** of respondents residing in **rural areas** of Manitoba (49%) report having **two vehicles** in their household compared to respondents residing in urban centres of Manitoba (38%).

3.2 NUMBER OF OIL CHANGES PER YEAR (TABLE 2)

Respondents having at least one vehicle in their household were asked to think about all the vehicles in their household and indicate the number of times in a year they change the oil in their vehicles.

Table 2: Number of Oil Changes per Year (Q. 2)

Respondents with at least one vehicle	British Columbia (n=451)	Alberta (n=472)	Saskatchewan (n=460)	Manitoba (n=455)
None	-	1%	*	*
1-3	41%	26%	18%	24%
4-6	40%	40%	35%	40%
7-9	7%	12%	16%	14%
10 or more	9%	18%	25%	13%
Don't know	4%	3%	6%	8%
MEAN	**4.73 times**	**6.06 times**	**7.50 times**	**6.01 times**
Oil changes per year per vehicle	**2.73**	**3.01**	**4.03**	**3.62**

**Less than 1%*

Provincial Differences

- Compared to all other provinces surveyed (a range of 18% to 26%), **British Columbia** residents (41%) have the **highest incidence** of changing the oil in their vehicle(s) **one to three times** per year with **Saskatchewan** residents (18%) having the **lowest incidence** of changing their vehicle(s) oil at this frequency.

- A **lower proportion** of **Saskatchewan** residents (35%) change their vehicle(s) oil **four to six times** per year compared residents of all other provinces surveyed (40%).

- Compared to Saskatchewan (16%) and Manitoba (14%) residents, **a lower proportion** of **British Columbia** residents (7%) change the oil in their vehicle(s) **seven to nine times** a year.

- **Saskatchewan** residents (25%) report the **highest incidence** of changing the oil in their vehicle(s) **10 or more times** in a year compared to all other provinces surveyed (a range of 9% to 18%).

3.2.1 BRITISH COLUMBIA

On average, British Columbia residents with a vehicle change the oil 4.73 times a year (an average of 2.73 oil changes per vehicle).

Four in ten British Columbia residents change the oil in their vehicle(s) one to three times (41%) and four to six times (40%) per year. Lower proportions mention changing the oil in their vehicle(s) seven to nine times (7%) and ten or more times (9%) per year.

3.2.2 ALBERTA

On average, Albertans with a vehicle change the oil 6.06 times a year (an average of 3.01 oil changes per vehicle).

Four in ten (40%) Albertans indicate they change the oil in their vehicles four to six times per year followed by one quarter (26%) of Albertans who change the oil in their vehicle one to three times per year. Eighteen percent (18%) change the oil in their vehicle(s) 10 or more times a year and 12% change the oil in their vehicle(s) seven to nine times a year.

3.2.3 SASKATCHEWAN

On average, Saskatchewan residents with a vehicle change the oil 7.50 times a year (an average of 4.03 oil changes per vehicle).

One third (35%) of Saskatchewan residents change the oil in their vehicle(s) four to six times per year followed by one-quarter (25%) change the oil in their vehicle(s) 10 or more times per year. Lower proportions mention changing the oil in their vehicle(s) one to three times (18%) and seven to nine times (16%) per year.

3.2.4 MANITOBA

On average, Manitoba residents with a vehicle change the oil 6.01 times a year (an average of 3.62 oil changes per vehicle).

Four in ten (40%) Manitoba residents change the oil in their vehicle(s) four to six times per year followed by one-quarter (24%) who change the oil in their vehicle(s) one to three times per year. Lower proportions mention changing the oil in their vehicle(s) 10 or more times (13%) and seven to nine times (14%) per year.

Manitoba Regional Differences

- A **higher proportion** of residents in **rural** areas of Manitoba (20%) change the oil in their vehicle(s) **10 or more times** a year compared to residents in urban areas of Manitoba (7%).

3.3 METHOD OF OIL CHANGE (TABLE 3)

Respondents who have changed the oil in their vehicle(s) at least one time in the last year were asked to indicate how they change their oil.

Incidence of paying a business to change oil in vehicles is higher in urban centres across <u>all provinces</u>.

Table 3: Method of Oil Change (Q. 3)

Respondents who change their oil at least once per year	British Columbia (n=436)	Alberta (n=453)	Saskatchewan (n=429)	Manitoba (n=414)
Pay a business to change	64%	60%	52%	65%
Change oil personally / acquaintance changes	25%	24%	29%	22%
Both methods	11%	16%	20%	13%

**Less than 1%*

Provincial Differences

- Compared to all other provinces surveyed (a range of 60% to 65%) **Saskatchewan** residents (52%) report the **lowest incidence** of **always paying a business** to change the oil in their vehicle(s).
- A **higher proportion** of **Saskatchewan** residents (29%) indicate they either change the oil in their vehicle(s) **themselves or have a friend / relative** change it for them than Manitoba residents (22%).
- Furthermore, compared to British Columbia (11%) and Manitoba (13%) residents a **higher proportion** of **Saskatchewan residents** (20%) indicate they use a **combination of both oil change methods**.

3.3.1 BRITISH COLUMBIA

More than six in ten (64%) British Columbia residents always pay a business to change the oil in their vehicle(s). One quarter (25%) either change the oil in their vehicle(s) themselves or have a friend / relative change it for them. One in ten (11%) use a combination of both methods.

British Columbia Regional Differences

- A **higher proportion** of residents in **major urban centres** of British Columbia (69%) **always pay a business** to change the oil in their vehicle(s) compared to residents in other areas of British Columbia (57%).

3.3.2 ALBERTA

Six in ten (60%) Albertans always pay a business to change the oil in their vehicle(s). One quarter (24%) either change the oil in their vehicle(s) themselves or have a friend / relative change it for them. Sixteen percent (16%) use a combination of both methods.

Alberta Regional Differences

- Compared to those residing in major urban centers (66%- Edmonton and 72% Calgary), **lower proportions** of those **residing in other areas of Alberta always pay a business** to change the oil in their vehicle(s), with those residing in rural areas and towns representing the lowest proportion across all regions (Other cities- 56% and rural areas and towns- 39%).

- Confirming the regional findings for paying a business for oil changes, compared to all other regions of Alberta, a **higher proportion** of those residing in **rural areas and towns** either change the oil in their vehicle(s) themselves or have a friend / relative change it for them (Rural / towns- 39% vs. 13% to 26% all other regions).

3.3.3 SASKATCHEWAN

Half (52%) of Saskatchewan residents always pay a business to change the oil in their vehicle(s). Three in ten (29%) either change the oil in their vehicle(s) themselves or have a friend / relative change it for them and one in five (20%) use a combination of both methods.

Saskatchewan Regional Differences

- A **higher proportion** of residents in **urban centres** of **Saskatchewan** (61%) **always pay a business** to change the oil in their vehicle(s) compared to residents in rural areas of Saskatchewan (44%). Correspondingly, **a higher proportion** of residents in **rural Saskatchewan** (34%) indicate they change the oil in their vehicle(s) **themselves or have a friend / relative change it** for them compared to residents in urban areas of Saskatchewan (23%).

3.3.4 MANITOBA

Sixty five percent (65%) of Manitoba residents always pay a business to change the oil in their vehicle(s). Twenty two percent (22%) either change the oil in their vehicle(s) themselves or have a friend / relative change it for them and 13% use a combination of both methods.

Manitoba Regional Differences

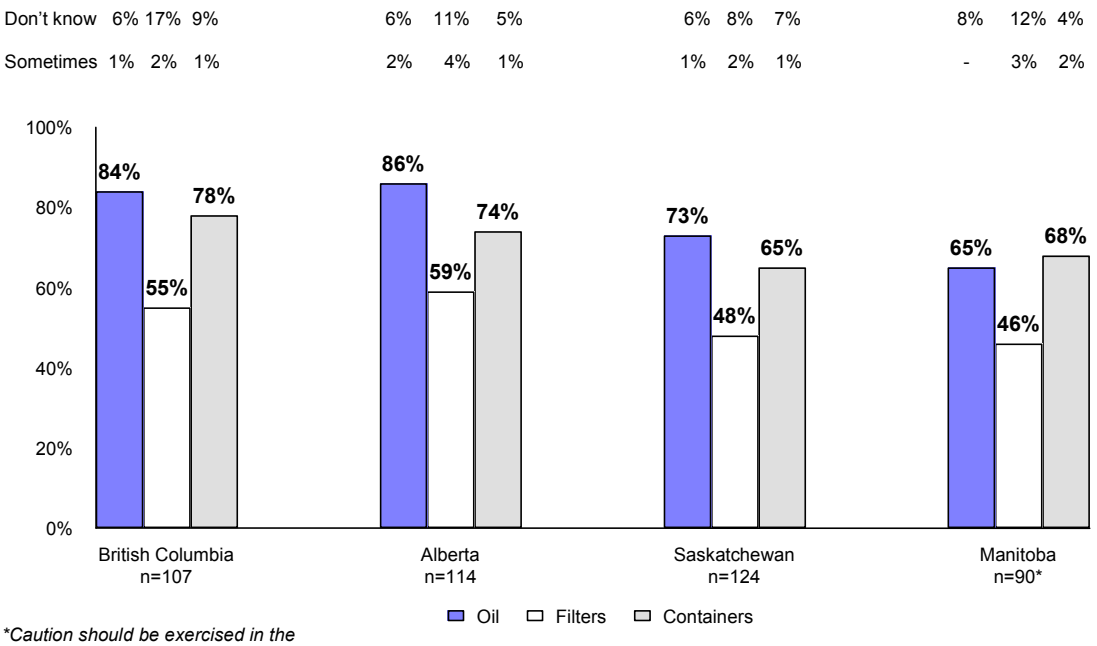
- A **higher proportion** of residents in **urban centres** of Manitoba (74%) **always pay a business** to change the oil in their vehicle(s) compared to residents in rural areas of Manitoba (51%). Correspondingly, a **higher proportion** of residents in rural Manitoba (29%) indicate they change the oil in their vehicle(s) **themselves or have a friend / relative** change it for them compared to residents in urban areas of Manitoba (16%).

3.4 RECYCLING OF OIL CHANGE PRODUCTS (FIG. 1)

Respondents who **do not always** pay a business to change the oil in their vehicle(s) we asked if they recycle the motor oil, filters and containers.

Fig.1: Recycling of Oil Products (Q.4)

- Respondents who do not always pay a business for oil changes -



**Caution should be exercised in the interpretation of data due to small sample size*

Provincial Differences

- Compared to Saskatchewan (73%) and Manitoba (65%) residents, **British Columbia** (84%) and **Alberta** (86%) residents report **higher incidences of recycling oil**.
- A **higher proportion** of **British Columbia** residents (78%) indicate they **recycle containers** when they change motor oil compared to Saskatchewan (65%) residents.
- Compared to both Saskatchewan (48%) and Manitoba (46%) residents, a **higher proportion of Alberta residents** (59%) indicate they **recycle filters**.

3.4.1 BRITISH COLUMBIA

Eighty four percent (84%) of British Columbia residents who do not always pay a business to change their vehicle(s) oil indicate they recycle the motor oil, followed by 78% who recycle containers and 55% who recycle filters. Lower proportions mention recycling these products "sometimes" (Oil- 1%, filters- 2%, and containers- 1%). Seventeen percent (17%) do not know if they recycle filters.

3.4.2 ALBERTA

Nearly nine in ten (86%) Albertans who do not always pay a business to change their vehicle(s) oil indicate they recycle the motor oil, followed by 74% who recycle containers and 59% who recycle filters. Lower proportions mention recycling these products "sometimes" (Oil- 2%, filters- 4%, and containers (1%). One in ten (11%) do not know if they recycle filters.

3.4.3 SASKATCHEWAN

Nearly three quarters (73%) of Saskatchewan residents who do not always pay a business to change their vehicle(s) oil indicate they recycle the motor oil, followed by 65% who recycle containers and 48% who recycle filters. Lower proportions mention recycling these products "sometimes" (Oil- 1%, filters- 2%, and containers- 1%).

Saskatchewan Regional Differences

- A **higher proportion** of residents in **urban centres of Saskatchewan** (83%) **recycle the oil** when they change the motor oil in their vehicle(s) themselves compared to residents in rural areas of Saskatchewan (68%).

3.4.4 MANITOBA

Two thirds (65%) of Manitoba residents who do not always pay a business to change their vehicle(s) oil indicate they recycle the motor oil and 68% indicate they recycle containers. Half (46%) of Manitoba residents mention they recycle filters. Lower proportions mention recycling these products "sometimes" (Filters- 3%, and containers- 2%). Twelve percent (12%) do not know if they recycle filters.

Manitoba Regional Differences

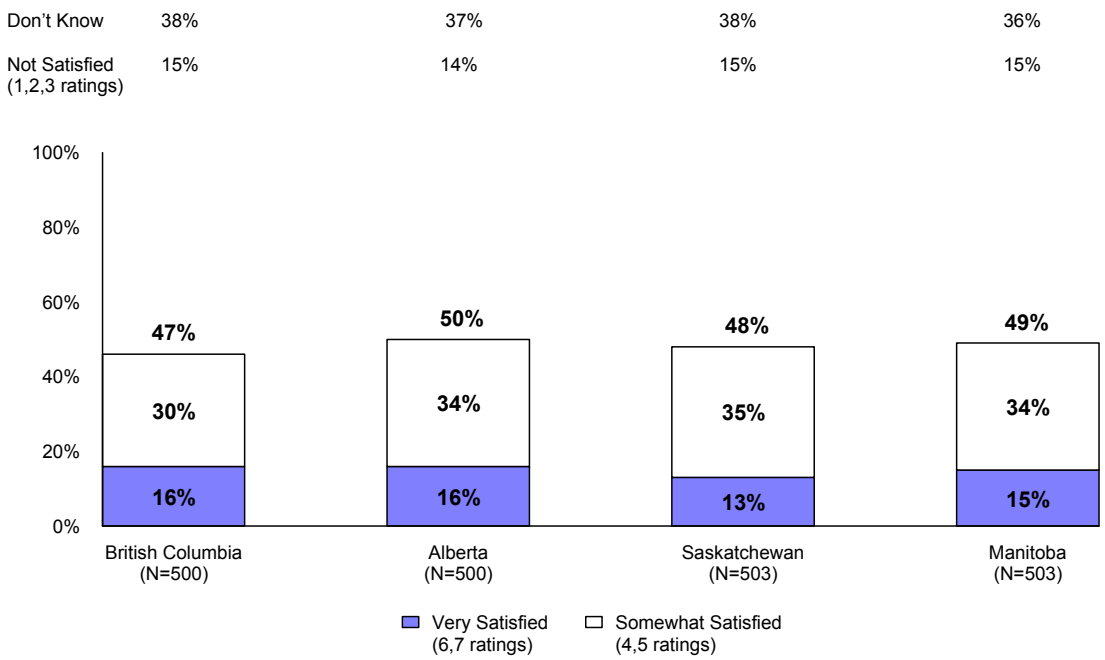
- Compared to residents in urban areas of Manitoba (37%), a **higher proportion** of residents in **rural areas** of Manitoba (54%) indicate they **recycle used filters** when they change their own motor oil. However, a **higher proportion** of **urban** Manitoba residents (78%) indicate they **recycle used containers** compared to rural Manitoba residents (60%).

3.5 SATISFACTION WITH MANAGEMENT OF OIL RECYCLING (FIG. 2)

All respondents were asked to rate their level of satisfaction, using a seven-point scale where one is not at all satisfied, four is satisfied and seven is completely satisfied, with how oil recycling is managed in Alberta.

A significant proportion of respondents in all provinces surveyed are unable to rate their level of satisfaction with oil recycling management possibly indicating low awareness of oil recycling management in the provinces.

Fig.2: Satisfaction with Management of Oil Recycling (Q.5)



3.5.1 BRITISH COLUMBIA

Forty seven percent (47%) of British Columbia residents are satisfied with how oil recycling is managed in their province including 16% who are very satisfied. Fifteen percent (15%) are not satisfied with management of oil recycling.

A significant proportion (38%) of British Columbia residents are unable to rate their level of satisfaction with oil recycling management.

3.5.2 ALBERTA

Half (50%) of Albertans are satisfied with how oil recycling is managed in their province including 16% who are very satisfied. Fourteen percent (14%) are not satisfied with management of oil recycling.

A significant proportion (37%) of Albertans are unable to rate their level of satisfaction with oil recycling management.

3.5.3 SASKATCHEWAN

Half (48%) of Saskatchewan residents are satisfied with how oil recycling is managed in their province including 13% who are very satisfied. Fifteen percent (15%) are not satisfied with management of oil recycling.

A significant proportion (38%) of Saskatchewan residents are unable to rate their level of satisfaction with oil recycling management.

Saskatchewan Regional Differences

- A **higher proportion** of **rural Saskatchewan** respondents provide both **very satisfied** (16% vs. 9% urban) and **combined very and somewhat satisfied** (54% vs. 41% urban) ratings for the management of oil recycling in their province compared to residents in urban areas of Saskatchewan.

3.5.4 MANITOBA

Half (49%) of Manitoba residents are satisfied with how oil recycling is managed in their province including 15% who are very satisfied. Fifteen percent (15%) are not satisfied with management of oil recycling.

A significant proportion (36%) of Manitoba residents are unable to rate their level of satisfaction with oil recycling management.

Manitoba Regional Differences

- A **higher proportion** of **rural Manitoba** respondents (20%) are **very satisfied** with the management of oil recycling in their province compared to residents in urban areas of Manitoba (12%).

3.6 REASON FOR SATISFACTION / DISSATISFACTION WITH MANAGEMENT OF OIL RECYCLING

Respondents where asked to indicate for what reason they provide their rating.

Table 4: Reasons for Satisfaction / Dissatisfaction with Management of Oil Recycling (Q. 6)

Respondents who provided a reason for level of satisfaction	British Columbia (n=305)	Alberta (n=317)	Sask (n=310)	Manitoba (n=315)
Positive Mentions				
Good law / satisfied with it / like it	13%	14%	2%	2%
My garage does it	7%	2%	7%	7%
Convenient location	4%	6%	5%	9%
I do it / People I know do it	4%	3%	7%	7%
General awareness about recycling oil	4%	5%	9%	6%
Trust those involved / Know people in the industry	4%	10%	6%	5%
Have seen it advertised / in the paper	3%	1%	2%	6%
Convenient Process (quick, easy)	2%	5%	4%	2%
General awareness of where to go	1%	-	4%	5%

Table 4: Reasons for Satisfaction / Dissatisfaction with Management of Oil Recycling (Q. 6) Cont'd

Respondents who provided a reason for level of satisfaction	British Columbia (n=305)	Alberta (n=317)	Sask (n=310)	Manitoba (n=315)
General public awareness of how oil is recycled	*	1%	8%	8%
Fees low / incentives	*	-	1%	-
Have been making improvements	-	1%	2%	*
Negative Mentions				
Inconvenient location	11%	8%	12%	7%

General lack of awareness about recycling oil	10%	15%	17%	17%
Need for improvements	10%	17%	7%	5%
Never saw / not enough advertising / in the paper	5%	2%	2%	5%
I don't do it / people don't do it	3%	2%	6%	6%
General public lack of awareness of how oil is recycled	3%	5%	10%	11%
Fees too high / no incentives	3%	3%	5%	2%
Bad law / not needed / not enforced	3%	6%	-	1%
Inconvenient process (long line ups, limited hours / staff)	2%	2%	6%	9%
General lack of awareness of where to go	2%	-	5%	3%
No trust those involved, negative knowledge about the industry	2%	5%	5%	5%
Garages do not do it	1%	*	-	*
Other Reasons	1%	1%	*	*
No Reasons	-	4%	4%	6%
Don't know	22%	3%	7%	4%

** Less than 1%*

3.6.1 BRITISH COLUMBIA

British Columbia residents most frequently cite oil recycling being a good law (13%), their garage recycling (7%), convenient location (4%), knowing people who recycle oil (4%), general awareness of oil recycling (4%) and knowing people in the industry (4%) as positive mentions regarding management of oil recycling.

Top negative mentions regarding management of oil recycling include inconvenient location (11%), lack of awareness about oil recycling in general (10%), the need for improvements (10%) and lack of advertising (5%).

One in five (22%) are unable to provide reason for their satisfaction or dissatisfaction with the management of used oil recycling.

3.6.2 ALBERTA

Top positive mentions regarding oil recycling among Albertans include oil recycling being a good law (14%), knowing people in the industry (10%), convenient location (6%), general awareness of oil recycling (5%) and the oil recycling process being quick and convenient.

Albertans most frequently cite the need for improvements (17%), lack of awareness about oil recycling in general (15%), inconvenient location (8%), the law being bad or unneeded (6%), not trusting those involved in the industry (5%) and lack of public awareness (5%) as negative mentions regarding management of oil recycling.

3.6.3 SASKATCHEWAN

Top positive mentions regarding oil recycling among Saskatchewan residents include general awareness of oil recycling (9%), public awareness of oil recycling (8%), their garage recycling (7%), personally / knowing people who recycle oil (7%), knowing people in the industry (6%), convenient location (5%), the oil recycling process being quick and convenient (4%) and awareness of where to go (4%).

Saskatchewan residents most frequently cite the need for improvements (7%), lack of awareness about oil recycling in general (17%), inconvenient location (12%), lack of public awareness (10%), not recycling used oil or not knowing people who recycle (6%), inconvenient process (6%), the law being bad or unneeded (6%) fees being too high or no incentive to recycle used oil (5%), general lack of awareness (5%), and not trusting those involved in the industry (5%) as negative mentions regarding management of oil recycling.

3.6.4 MANITOBA

Manitoba residents most frequently cite convenient location (9%), public awareness of oil recycling (8%), their garage recycling (7%), knowing people who recycle oil (7%), general awareness of oil recycling (6%), oil recycling advertisements (6%), knowing people in the industry (5%) and general awareness of where to go (5%) as positive mentions regarding management of oil recycling.

Top negative mentions regarding management of oil recycling include lack of awareness about oil recycling in general (17%), lack of public awareness of oil recycling (11%), the oil recycling process being inconvenient (9%), inconvenient location (7%), not recycling oil or not knowing people who recycle oil (6%), the need for improvements (5%), lack of advertising (5%) and not trusting those involved (5%).

4 CONCLUSIONS

- The majority of Western Canadians always pay a business to change their oil in their vehicle(s). Among the lower proportion who do not always pay a business to change their oil, the majority always recycle the used oil, and to a somewhat lesser degree, the containers. The proportion who recycle used filters is significantly lower than the proportion recycling used oil and containers.

- A substantial proportion of respondents in all provinces surveyed are unable to rate their level of satisfaction with oil recycling management, indicating low awareness of oil recycling management and process. Therefore, there is potential to increase perceptions and awareness of recycling oil products.

- Those able to rate their satisfaction with the management of used oil recycling are generally somewhat satisfied rather than very satisfied. Both positive and negative reasons for satisfaction are generally tied to awareness, indicating additional awareness would increase satisfaction. Recognizing that awareness leads to increased intensity of perceptions, when increases in awareness are seen, perceptions should be monitored to ensure they are positive.

- The incidence of paying a company to change oil in vehicles is higher in urban centres than rural centres. If Used Oil Management Association is contemplating a media campaign, specific attention should be given to selecting media that will reach rural populations, which have a greater tendency to change their motor oil themselves or have a friend change it for them.

5 DEMOGRAPHIC PROFILE (TABLE 5)

Table 5: Demographic Profile (QD1-D8)

All Respondents	British Columbia (N=500)	Alberta (N=500)	Saskatchewan (N=503)	Manitoba (N=503)
Gender				
Male	48%	49%	51%	52%
Female	52%	51%	49%	48%
Age				
18 to 24	12%	6%	12%	12%
25 to 34	17%	21%	16%	16%
35 to 44	22%	24%	18%	20%
45 to 54	20%	23%	20%	18%
55 to 64	12%	15%	12%	12%
65 and over	18%	10%	18%	17%
Education Level				
Some high school	10%	10%	15%	14%
Graduated high school	26%	17%	24%	24%
Some post-secondary (excluding University)	10%	23%	20%	18%
University / College graduate	54%	50%	38%	40%
Household Income				
Less than $20,000	-	6%	12%	9%
$20,000 to $49,999	-	9%	29%	27%
$50,000 to $99,999	-	12%	30%	29%
$100,000 or more	-	15%	8%	8%
Don't know / Refused	-	12%	21%	26%

APPENDIX A
QUESTIONNAIRE

CRITERION RESEARCH CORP.
CONNECTIONS OMNIBUS OCTOBER/NOVEMBER 2004

Hello, my name is _____ and I'm calling from Criterion Research. May I please speak with the head or joint head of the household?

RESPONDENT AVAILABLE: CONTINUE
NOT AVAILABLE: CALLBACK

We are conducting a __-minute survey on a variety of diverse topics. We are not selling anything and your individual responses will be kept confidential. This survey is registered with the Canadian Survey Research Council. They can be reached at 1-800-554-9996 and will verify that we are conducting this survey.

CONTACT INFORMATION IF REQUESTED:
Please contact Barry Davis of Criterion Research if you have any questions about the survey, at 423-0708 in Edmonton, or 1-877-344-0444 toll-free.

D1. DO NOT ASK. RECORD GENDER. CHECK QUOTAS: 50/50 IN EACH REGION.

1 Male
2 Female

A. Do you or any member of your family currently work for… READ LIST

	YES	NO
A marketing research company	1	2
A media or advertising company	1	2

Have you or any member of your family ever worked for… READ LIST

	YES	NO
A marketing research company	1	2
A media or advertising company	1	2

TERMINATE IF YES TO ANY IN Q.A

B. Just to confirm, are you 18 years of age or older?

1 Yes CONTINUE
2 No TERMINATE

I will now ask you some questions about automobile use.

1. How many vehicles do you have in your household?

_____ (RECORD EXACT RESPONSE)

[SKIP TO Q.5 IF Q.1=0 or Don't Know / Refused, ELSE ASK Q.2]

2. Thinking about all of the vehicles in your household, please tell me the number of times per year you change the oil in your automobiles.

_____ (RECORD EXACT RESPONSE)

[SKIP TO Q.5 IF Q.2=0 or Don't Know / Refused, ELSE ASK Q.3]

3. Please tell me which statement best describes how you change the oil in your vehicles. Do you…

[RANDOMIZE 1 and 2, but always read 3 last]

1 Pay a business to change your oil for you
2 Change the oil yourself or have a friend or relative change it for you
3 Or do you use both methods?
DO NOT READ
F5 Don't Know

[SKIP TO Q.5 IF Q.3=1 or 3 or Don't know / Refused, ELSE ASK Q.4]

4. When you change your motor oil yourself, do you recycle the…
RANDOMIZE AND READ

a. Oil?

1 Yes
2 No
3 Sometimes
DO NOT READ
F5 Don't know

b. Filters?
c. Containers?

5. Please think about everything you know or have heard about recycling programs for used oil. Using a scale from ONE to SEVEN, where ONE means NOT SATISFIED AT ALL, FOUR means SATISFIED, and SEVEN means COMPLETELY SATISFIED, please rate your level of satisfaction with how the recycling of oil is managed in [INSERT PROVINCE].

1 Not satisfied at all
2
3
4 Satisfied
5
6
7 Completely satisfied
DO NOT READ
F5 Don't know

SKIP Q.6 IF Q.5=Don't Know

6. For what reasons do you provide that rating?

_____
_____
_____

DEMOGRAPHICS

Now I have some questions that will help us classify the data.

D2. Which of the following age groups are you in. . . READ

1 18 - 24 years
2 25 - 34
3 35 - 44
4 45 - 54
5 55 - 64
6 65 years and over
DO NOT READ
F4 Refused

D3. Which category represents the highest level of education you have completed… READ

1 Some high school
2 Graduated high school
3 Some post secondary excluding university
4 Graduated post secondary excluding university
5 Some university
6 University bachelor degree
7 Graduate degree
DO NOT READ
F4 Refused

D4. Is your annual household income less than or greater than $50,000 before taxes? Is it between… READ 1-4 OR 5-8 AS APPLICABLE

IF LESS THAN $50,000
1 Under $20,000
2 $20,000 - $29,999
3 $30,000 - $39,999
4 $40,000 - $49,999

IF GREATER THAN $50,000
5 $50,000 - $59,999
6 $60,000 - $79,999
7 $80,000 - $99,999
8 $100,000 or greater
DO NOT READ
F5 Don't know / Refused

And finally, just in case my supervisor wants to verify this interview, may I have your first name or initials? _____

This completes our survey. Thank you for your time and cooperation!

APPENDIX B
COMPUTER TABLES
BANNER A

CRITERION RESEARCH CORP. Feb 1 2005 13:24
CONNECTION OMNIBUS OCTOBER 2004 (2nd) PAGE 1
8150504
B. RECORD GENDER. DO NOT ASK. [50/50 QUOTA]

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	2006	500	301	199	500	318	56	127	503	228	275	503	311	192
Male	1003	242	141	102	245	156	28	61	256	108	147	260	152	108
	50.0%	48.5%	46.8%	51.0%	48.9%	49.2%	49.6%	48.0%	50.8%	47.6%	53.5%	51.7%	48.9%	56.2%
Female	1002	258	160	98	255	161	28	66	247	119	127	243	159	84
	50.0%	51.5%	53.2%	49.0%	51.1%	50.8%	50.4%	52.0%	49.0%	52.4%	46.2%	48.3%	51.1%	43.8%
UNWEIGHTED TOTAL	2006	500	300	200	500	250	125	125	503	217	286	503	302	201
Undetermined	1	-	-	-	-	-	-	-	1	-	1	-	-	-
	*								0.2%		0.3%			

3270304 USED OIL RECYCLING (BEARING POINT): 500 INTERVIEWS INCLUDING 125 EDMONTON CMA, 125 CALGARY CMA, 125 OTHER CITIES, 125 TOWNS/RURAL I will now ask you some questions about automobile use. 1. How many vehicles do you have in your household? (RECORD EXACT RESPONSE)

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	2006	500	301	199	500	318	56	127	503	228	275	503	311	192
0	169	50	40	11	31	27	2	2	41	23	18	46	39	7
	8.4%	10.1%	13.2%	5.4%	6.1%	8.4%	3.2%	1.6%	8.2%	10.1%	6.6%	9.2%	12.6%	3.8%
1	654	176	108	68	150	109	13	27	148	73	75	181	126	54
	32.6%	35.2%	36.0%	34.0%	29.9%	34.4%	23.2%	21.6%	29.4%	32.2%	27.1%	35.9%	40.7%	28.2%
2	813	189	103	86	197	118	23	56	216	94	122	211	117	94
	40.5%	37.8%	34.1%	43.3%	39.4%	37.2%	41.6%	44.0%	42.9%	41.1%	44.4%	42.0%	37.6%	49.1%
3	237	55	34	21	81	47	14	20	62	25	37	39	20	20
	11.8%	10.9%	11.2%	10.5%	16.2%	14.8%	24.8%	16.0%	12.3%	11.2%	13.3%	7.9%	6.3%	10.3%
4 or more	132	30	16	13	41	17	4	20	36	13	24	25	9	16
	6.6%	6.0%	5.4%	6.8%	8.2%	5.2%	7.2%	16.0%	7.2%	5.5%	8.6%	5.0%	2.9%	8.5%
MEAN	1.82	1.73	1.63	1.87	2.01	1.81	2.10	2.50	1.86	1.70	1.99	1.66	1.46	1.98
UNWEIGHTED TOTAL	2006	500	300	200	500	250	125	125	503	217	286	503	302	201
Don't Know	1	-	-	-	1	-	-	1	-	-	-	-	-	-
	0.1%				0.2%			0.8%						

2. Thinking about all of the vehicles in your household, please tell me the number of times per year you change the oil in your automobiles.

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	1836	450	261	189	468	291	54	124	462	205	257	457	272	185
0	10	-	-	-	6	5	-	1	2	-	2	2	1	1
	0.5%				1.3%	1.7%		0.8%	0.4%		0.6%	0.4%	0.2%	0.6%
1	71	30	16	13	13	10	-	3	12	9	3	16	8	7
	3.8%	6.6%	6.2%	7.1%	2.8%	3.5%		2.5%	2.6%	4.3%	1.3%	3.4%	3.1%	3.9%
2	239	89	49	40	60	38	8	14	41	20	21	49	27	22
	13.0%	19.9%	18.8%	21.3%	12.8%	13.1%	14.0%	11.5%	9.0%	9.8%	8.3%	10.7%	9.9%	11.9%
3	188	64	40	24	48	29	8	11	30	16	14	45	32	14
	10.2%	14.3%	15.4%	12.8%	10.3%	10.0%	14.9%	9.0%	6.5%	7.7%	5.4%	9.9%	11.6%	7.4%
4	409	110	68	43	122	80	11	30	76	42	35	101	68	33
	22.3%	24.6%	26.0%	22.7%	26.0%	27.5%	20.7%	24.6%	16.5%	20.3%	13.6%	22.0%	24.9%	17.8%
5	105	19	11	8	32	20	5	6	25	6	18	30	19	10
	5.7%	4.2%	4.3%	4.1%	6.8%	7.0%	9.9%	4.9%	5.3%	3.0%	7.2%	6.5%	7.2%	5.5%
6	196	50	28	23	33	20	7	6	59	28	31	53	29	24
	10.7%	11.2%	10.6%	12.0%	7.1%	7.0%	12.4%	4.9%	12.9%	13.9%	12.1%	11.7%	10.8%	12.9%
7	41	4	2	2	14	6	2	5	10	4	7	13	10	3
	2.2%	0.9%	0.7%	1.1%	2.9%	2.2%	4.1%	4.1%	2.3%	1.8%	2.7%	2.9%	3.7%	1.7%
8	147	22	9	13	33	19	4	10	53	25	28	38	23	15
	8.0%	5.0%	3.6%	6.9%	7.1%	6.5%	7.4%	8.2%	11.5%	12.3%	10.9%	8.3%	8.4%	8.0%
9	39	5	2	3	8	4	1	3	11	1	10	15	10	6
	2.1%	1.1%	0.8%	1.6%	1.7%	1.3%	1.7%	2.5%	2.4%	0.4%	4.0%	3.4%	3.5%	3.1%
10	81	11	9	2	16	11	2	3	35	12	23	18	8	10
	4.4%	2.5%	3.6%	1.1%	3.5%	3.9%	3.3%	2.5%	7.6%	5.8%	9.1%	3.9%	2.9%	5.5%
11	4	-	-	-	1	-	-	1	2	1	1	1	-	1
	0.2%				0.2%			0.8%	0.4%	0.5%	0.3%	0.2%		0.4%
12	107	16	8	8	40	24	2	13	32	11	20	20	9	12
	5.8%	3.5%	2.9%	4.3%	8.4%	8.3%	4.1%	10.7%	6.9%	5.6%	7.9%	4.4%	3.2%	6.2%

(continued)

2. Thinking about all of the vehicles in your household, please tell me the number of times per year you change the oil in your automobiles.

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	1836	450	261	189	468	291	54	124	462	205	257	457	272	185
13+	104	12	7	4	29	16	3	9	45	19	26	19	4	15
	5.7%	2.6%	2.8%	2.3%	6.1%	5.7%	5.8%	7.4%	9.7%	9.0%	10.2%	4.1%	1.4%	8.1%
MEAN	6.08	4.73	4.64	4.85	6.06	5.88	6.05	6.51	7.50	6.87	8.01	6.01	5.23	7.12
UNWEIGHTED TOTAL	1838	451	261	190	472	229	121	122	460	193	267	455	262	193
Don't Know	96	16	11	5	14	6	1	7	28	12	16	38	25	13
	5.2%	3.6%	4.3%	2.7%	3.1%	2.2%	1.7%	5.7%	6.1%	5.7%	6.4%	8.2%	9.2%	6.9%

2. Thinking about all of the vehicles in your household, please tell me the number of times per year you change the oil in your automobiles.

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	1836	450	261	189	468	291	54	124	462	205	257	457	272	185
0	10	-	-	-	6	5	-	1	2	-	2	2	1	1
	0.5%				1.3%	1.7%		0.8%	0.4%		0.6%	0.4%	0.2%	0.6%
1-3	498	183	105	78	121	77	16	28	83	45	39	110	67	43
	27.1%	40.8%	40.4%	41.2%	25.9%	26.6%	28.9%	23.0%	18.1%	21.8%	15.1%	24.0%	24.6%	23.2%
4-6	710	180	107	73	187	121	23	43	160	76	84	183	116	67
	38.7%	40.0%	40.9%	38.8%	39.8%	41.5%	43.0%	34.4%	34.7%	37.1%	32.8%	40.2%	42.9%	36.2%
7-9	227	31	13	18	55	29	7	18	75	30	45	66	43	24
	12.3%	7.0%	5.1%	9.6%	11.6%	10.0%	13.2%	14.8%	16.1%	14.4%	17.5%	14.5%	15.7%	12.8%
10+	296	39	24	15	86	52	7	26	114	43	71	58	20	38
	16.1%	8.6%	9.3%	7.7%	18.3%	17.9%	13.2%	21.3%	24.6%	20.9%	27.6%	12.6%	7.4%	20.3%
MEAN	6.08	4.73	4.64	4.85	6.06	5.88	6.05	6.51	7.50	6.87	8.01	6.01	5.23	7.12
UNWEIGHTED TOTAL	1838	451	261	190	472	229	121	122	460	193	267	455	262	193
Don't Know	96	16	11	5	14	6	1	7	28	12	16	38	25	13
	5.2%	3.6%	4.3%	2.7%	3.1%	2.2%	1.7%	5.7%	6.1%	5.7%	6.4%	8.2%	9.2%	6.9%

3. Please tell me which statement best describes how you change the oil in your vehicles. Do you... [RANDOMIZE 1 and 2, but always read 3 last]

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	1731	433	250	184	448	279	53	116	432	193	239	417	246	171
Pay a business to change your oil for you	1037 59.9%	276 63.7%	172 68.7%	104 56.9%	267 59.6%	193 69.1%	29 55.5%	45 38.6%	224 51.8%	117 60.8%	106 44.4%	270 64.7%	183 74.3%	87 50.9%
Change the oil yourself or have a friend or relative change it for you	429 24.8%	107 24.7%	55 22.2%	52 28.1%	108 24.1%	49 17.7%	14 26.1%	45 38.6%	124 28.8%	44 22.7%	80 33.7%	90 21.6%	41 16.5%	50 29.0%
Or do you use both methods?	260 15.0%	49 11.2%	21 8.4%	28 15.0%	72 16.0%	36 12.7%	10 18.5%	26 22.8%	84 19.5%	32 16.5%	52 21.9%	56 13.4%	22 8.8%	34 20.1%
UNWEIGHTED TOTAL	1732	436	251	185	453	220	119	114	429	182	247	414	238	176
Don't Know	4 0.2%	2 0.4%	2 0.7%	-	1 0.3%	1 0.5%	-	-	-	-	-	1 0.2%	1 0.4%	-

4. When you change your motor oil yourself, do you recycle the...
   a. Oil

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	429	107	55	52	108	49	14	45	124	44	80	90	41	50
Yes	332	90	46	44	93	43	13	37	91	36	55	58	28	31
	77.3%	84.0%	82.7%	85.4%	85.8%	87.2%	93.5%	81.8%	73.2%	83.2%	67.8%	64.7%	67.8%	62.1%
No	65	10	6	3	7	1	0	5	24	3	21	25	9	15
	15.1%	9.1%	11.6%	6.3%	6.3%	2.6%	3.2%	11.4%	19.2%	7.4%	25.6%	27.3%	22.9%	30.8%
Sometimes	5	1	-	1	2	-	-	2	2	1	1	-	-	-
	1.1%	1.1%		2.2%	1.9%			4.5%	1.4%	1.8%	1.1%			
UNWEIGHTED TOTAL	435	107	55	52	114	39	31	44	124	41	83	90	40	50
Don't Know	28	6	3	3	7	5	0	1	8	3	4	7	4	4
	6.5%	5.8%	5.6%	6.1%	6.0%	10.2%	3.2%	2.3%	6.2%	7.6%	5.5%	8.1%	9.3%	7.1%

4. When you change your motor oil yourself, do you recycle the...
b. Filters?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	429	107	55	52	108	49	14	45	124	44	80	90	41	50
Yes	224	59	28	30	64	30	8	25	60	19	41	42	15	27
	52.3%	54.8%	50.9%	58.9%	59.1%	61.5%	58.1%	56.8%	48.4%	43.2%	51.3%	46.4%	37.0%	54.1%
No	142	28	17	11	27	10	5	12	52	18	34	34	17	17
	33.0%	26.4%	30.6%	21.9%	25.3%	20.6%	35.5%	27.3%	41.6%	40.9%	42.0%	38.1%	42.6%	34.3%
Sometimes	12	2	1	1	5	3	-	2	2	1	1	3	2	1
	2.8%	2.1%	1.7%	2.5%	4.2%	5.1%		4.5%	1.9%	3.1%	1.1%	3.1%	4.1%	2.4%
UNWEIGHTED TOTAL	435	107	55	52	114	39	31	44	124	41	83	90	40	50
Don't Know	51	18	9	9	12	6	1	5	10	6	4	11	7	5
	12.0%	16.8%	16.9%	16.7%	11.4%	12.8%	6.5%	11.4%	8.1%	12.8%	5.5%	12.4%	16.3%	9.2%

4. When you change your motor oil yourself, do you recycle the...
c. Containers?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	429	107	55	52	108	49	14	45	124	44	80	90	41	50
Yes	305	83	45	38	80	34	10	36	81	28	53	61	32	30
	71.0%	77.7%	81.2%	74.0%	73.7%	69.2%	71.0%	79.5%	65.1%	63.7%	65.9%	68.1%	78.1%	60.0%
No	91	13	7	6	21	10	3	8	33	10	23	23	7	16
	21.3%	12.5%	12.6%	12.4%	19.8%	20.6%	22.6%	18.2%	26.8%	23.5%	28.7%	25.8%	17.6%	32.5%
Sometimes	5	1	-	1	1	1	-	-	1	-	1	2	1	1
	1.2%	0.9%		1.8%	1.2%	2.6%			0.7%		1.1%	2.4%	2.4%	2.5%
UNWEIGHTED TOTAL	435	107	55	52	114	39	31	44	124	41	83	90	40	50
Don't Know	28	9	3	6	6	4	1	1	9	6	3	3	1	3
	6.4%	8.8%	6.2%	11.7%	5.3%	7.7%	6.5%	2.3%	7.3%	12.8%	4.3%	3.6%	1.9%	5.1%

5. Please think about everything you know or have heard about recycling programs for used oil. Using a scale from ONE to SEVEN, where ONE means NOT SATISFIED AT ALL, FOUR means SATISFIED, and SEVEN means COMPLETELY SATISFIED, please rate your level of satisfaction with how the recycling of oil is managed in ALBERTA.

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	2006	500	301	199	500	318	56	127	503	228	275	503	311	192
Not Satisfied At All	117	31	10	21	25	13	3	9	26	12	14	35	19	16
	5.8%	6.2%	3.4%	10.5%	4.9%	4.0%	4.8%	7.2%	5.2%	5.4%	5.1%	6.9%	6.1%	8.2%
2	54	20	11	9	11	4	2	5	12	4	9	12	12	-
	2.7%	3.9%	3.5%	4.6%	2.1%	1.2%	3.2%	4.0%	2.5%	1.6%	3.1%	2.3%	3.8%	
3	120	23	16	8	33	24	4	5	35	15	19	29	21	8
	6.0%	4.6%	5.2%	3.8%	6.6%	7.6%	6.4%	4.0%	6.9%	6.8%	7.1%	5.9%	6.9%	4.2%
Satisfied	437	100	62	38	110	67	13	29	117	50	67	111	72	40
	21.8%	20.0%	20.6%	19.2%	21.9%	21.2%	23.2%	23.2%	23.2%	22.0%	24.2%	22.1%	23.0%	20.5%
5	232	52	37	15	62	43	6	12	58	22	36	60	36	24
	11.6%	10.5%	12.4%	7.6%	12.3%	13.6%	11.2%	9.6%	11.5%	9.7%	13.0%	12.0%	11.6%	12.5%
6	115	18	13	5	36	25	4	6	28	9	20	32	15	18
	5.7%	3.7%	4.3%	2.7%	7.2%	8.0%	8.0%	4.8%	5.6%	3.8%	7.1%	6.4%	4.7%	9.2%
Completely Satisfied	185	63	29	34	42	25	4	13	37	12	26	43	23	20
	9.2%	12.5%	9.7%	16.8%	8.4%	8.0%	6.4%	10.4%	7.4%	5.2%	9.3%	8.5%	7.3%	10.4%
(1,2,3)	292	74	36	38	68	41	8	19	74	31	42	76	52	24
	14.5%	14.8%	12.1%	18.9%	13.6%	12.8%	14.4%	15.2%	14.6%	13.8%	15.4%	15.1%	16.9%	12.4%
(4,5)	669	152	99	53	171	110	19	42	175	72	102	171	108	64
	33.4%	30.5%	32.9%	26.8%	34.2%	34.8%	34.4%	32.8%	34.7%	31.7%	37.2%	34.0%	34.7%	33.1%
(6,7)	300	81	42	39	78	51	8	19	65	20	45	75	37	38
	14.9%	16.2%	14.0%	19.5%	15.6%	16.0%	14.4%	15.2%	13.0%	8.9%	16.4%	14.9%	12.0%	19.6%
(4,5,6,7)	969	233	141	92	249	161	27	61	240	92	148	246	145	101
	48.3%	46.7%	46.9%	46.3%	49.9%	50.8%	48.8%	48.0%	47.7%	40.6%	53.6%	49.0%	46.6%	52.7%
UNWEIGHTED TOTAL	2006	500	300	200	500	250	125	125	503	217	286	503	302	201
Don't Know	745	193	123	69	183	116	20	47	189	104	85	181	113	67
	37.2%	38.5%	41.0%	34.8%	36.6%	36.4%	36.8%	36.8%	37.7%	45.7%	31.0%	35.9%	36.5%	34.9%

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	317	-	-	-	317	202	35	80	-	-	-	-	-	-
Convenient location	20	-	-	-	20	14	3	3	-	-	-	-	-	-
	6.3%				6.3%	6.9%	8.9%	3.8%						
Convenient Process (quick, easy)	15	-	-	-	15	11	1	2	-	-	-	-	-	-
	4.7%				4.7%	5.7%	3.8%	2.5%						
I do it/People I know do it	10	-	-	-	10	6	-	4	-	-	-	-	-	-
	3.3%				3.3%	3.1%		5.1%						
My garage does it	6	-	-	-	6	5	0	-	-	-	-	-	-	-
	1.7%				1.7%	2.5%	1.3%							
Have seen it advertised/in the paper	3	-	-	-	3	-	1	2	-	-	-	-	-	-
	0.9%				0.9%		2.5%	2.5%						
General awareness about recycling oil	16	-	-	-	16	11	2	3	-	-	-	-	-	-
	5.1%				5.1%	5.7%	5.1%	3.8%						
General public awareness of how oil is recycled	3	-	-	-	3	1	0	1	-	-	-	-	-	-
	0.9%				0.9%	0.6%	1.3%	1.3%						
Trust those involved know people in the industry	32	-	-	-	32	20	4	7	-	-	-	-	-	-
	10.1%				10.1%	10.1%	12.7%	8.9%						
Have been making improvements	3	-	-	-	3	1	-	2	-	-	-	-	-	-
	1.0%				1.0%	0.6%		2.5%						
Good law/satisfied with it/like it	45	-	-	-	45	27	5	13	-	-	-	-	-	-
	14.1%				14.1%	13.2%	13.9%	16.5%						
Inconvenient location	25	-	-	-	25	11	2	11	-	-	-	-	-	-
	7.8%				7.8%	5.7%	6.3%	13.9%						
Inconvenient process (long line ups, limited hours/staff) (continued)	6	-	-	-	6	4	-	2	-	-	-	-	-	-
	1.8%				1.8%	1.9%		2.5%						

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	317	-	-	-	317	202	35	80	-	-	-	-	-	-
I don't do it/ people don't do it	6 1.8%	-	-	-	6 1.8%	3 1.3%	2 6.3%	1 1.3%	-	-	-	-	-	-
Garages do not do it	1 0.4%	-	-	-	1 0.4%	1 0.6%	-	-	-	-	-	-	-	-
Never seen/not enough advertising/ in the paper	7 2.3%	-	-	-	7 2.3%	5 2.5%	1 3.8%	1 1.3%	-	-	-	-	-	-
General lack of awareness about recycling oil	48 15.1%	-	-	-	48 15.1%	33 16.4%	6 16.5%	9 11.4%	-	-	-	-	-	-
General public's lack of awareness of how oil is recycled	16 5.0%	-	-	-	16 5.0%	10 5.0%	3 7.6%	3 3.8%	-	-	-	-	-	-
No trust involved, neg. knowledge about industry	15 4.6%	-	-	-	15 4.6%	11 5.6%	1 3.8%	2 2.5%	-	-	-	-	-	-
Need for improvements	53 16.7%	-	-	-	53 16.7%	36 17.6%	6 17.7%	11 13.9%	-	-	-	-	-	-
Fees are too high/ no incentives	10 3.1%	-	-	-	10 3.1%	8 3.8%	2 6.3%	-	-	-	-	-	-	-
Bad law/not needed/ not enforced	20 6.4%	-	-	-	20 6.4%	14 6.9%	2 6.3%	4 5.1%	-	-	-	-	-	-
Other reasons	4 1.1%	-	-	-	4 1.1%	3 1.2%	-	1 1.3%	-	-	-	-	-	-
No Reasons	13 4.0%	-	-	-	13 4.0%	6 3.1%	1 3.8%	5 6.3%	-	-	-	-	-	-
UNWEIGHTED TOTAL	317	-	-	-	317	159	79	79	-	-	-	-	-	-

(continued)

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	317	-	-	-	317	202	35	80	-	-	-	-	-	-
Don't Know	9	-	-	-	9	4	1	4	-	-	-	-	-	-
	2.8%				2.8%	1.9%	2.5%	5.1%						

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	943	307	177	130	-	-	-	-	314	124	190	322	197	125
Convenient location	56	11	6	6	-	-	-	-	16	7	10	28	10	19
	5.9%	3.7%	3.2%	4.4%					5.3%	5.4%	5.1%	8.7%	4.8%	14.8%
Convenient Process (quick, easy)	27	6	4	2	-	-	-	-	14	2	12	7	2	5
	2.9%	2.0%	2.3%	1.6%					4.5%	1.5%	6.4%	2.2%	1.2%	3.9%
I do it/People I know do it	59	14	9	5	-	-	-	-	23	14	9	22	7	15
	6.3%	4.5%	4.9%	4.0%					7.3%	11.2%	4.9%	6.9%	3.6%	12.0%
My garage does it	69	22	11	11	-	-	-	-	24	11	13	23	15	7
	7.3%	7.3%	6.2%	8.7%					7.7%	9.1%	6.9%	7.0%	7.8%	5.9%
Have seen it advertised/in the paper	34	8	7	1	-	-	-	-	7	4	3	18	13	5
	3.6%	2.7%	4.0%	0.9%					2.3%	3.2%	1.8%	5.6%	6.8%	3.8%
General awareness about recycling oil	59	12	8	3	-	-	-	-	27	10	18	20	10	10
	6.3%	3.8%	4.7%	2.6%					8.7%	7.8%	9.3%	6.2%	5.3%	7.7%
General awareness about where to go	32	3	2	1	-	-	-	-	14	6	7	15	10	5
	3.4%	1.0%	1.2%	0.8%					4.4%	5.2%	3.9%	4.6%	5.1%	3.7%
General public awareness of how oil is recycled	52	1	1	-	-	-	-	-	26	15	11	25	14	11
	5.5%	0.3%	0.5%						8.3%	12.2%	5.7%	7.8%	7.0%	9.1%
Trust those involved know people in the industry	45	12	7	5	-	-	-	-	17	11	7	16	13	3
	4.8%	3.9%	3.8%	4.0%					5.6%	8.7%	3.5%	4.9%	6.6%	2.2%
Have been making improvements	7	-	-	-	-	-	-	-	6	-	6	1	1	-
	0.8%								2.0%		3.3%	0.3%	0.6%	
Fees low/incentives	4	1	1	-	-	-	-	-	3	-	3	-	-	-
	0.4%	0.3%	0.5%						0.9%		1.5%			
Good law/satisfied with it/like it	52	39	25	14	-	-	-	-	6	4	2	7	4	3
	5.5%	12.8%	14.2%	10.9%					1.9%	3.3%	0.9%	2.2%	2.2%	2.2%
Inconvenient location	94	33	15	18	-	-	-	-	37	15	21	24	14	10
	9.9%	10.8%	8.7%	13.7%					11.8%	12.5%	11.3%	7.3%	7.1%	7.7%

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	943	307	177	130	-	-	-	-	314	124	190	322	197	125
Inconvenient process (long line ups, limited hours/staff)	55 5.9%	7 2.1%	3 1.5%	4 3.0%	-	-	-	-	19 6.2%	5 3.8%	15 7.7%	29 9.1%	24 12.2%	5 4.2%
I don't do it/ people don't do it	46 4.9%	11 3.4%	8 4.3%	3 2.3%	-	-	-	-	17 5.5%	6 4.8%	11 6.0%	18 5.7%	11 5.5%	7 5.9%
Garages do not do it	5 0.5%	3 1.0%	1 0.5%	2 1.6%	-	-	-	-	-	-	-	2 0.5%	2 0.9%	-
Never seen/not enough advertising/ in the paper	40 4.2%	15 5.0%	5 3.0%	10 7.7%	-	-	-	-	8 2.5%	2 2.0%	5 2.9%	17 5.2%	11 5.5%	6 4.8%
General lack of awareness about recycling oil	138 14.6%	31 10.1%	21 11.8%	10 7.6%	-	-	-	-	52 16.6%	20 16.2%	32 16.8%	55 17.1%	42 21.2%	13 10.5%
General lack of awareness about where to go	34 3.6%	7 2.2%	2 1.2%	5 3.7%	-	-	-	-	16 5.3%	10 8.1%	7 3.4%	11 3.4%	6 2.9%	5 4.2%
General public's lack of awareness of how oil is recycled	77 8.2%	9 3.0%	3 1.7%	6 4.9%	-	-	-	-	32 10.2%	11 9.1%	21 10.9%	36 11.2%	28 14.1%	8 6.7%
No trust involved, neg. knowledge about industry	38 4.0%	7 2.2%	5 2.5%	2 1.8%	-	-	-	-	16 5.1%	10 7.9%	6 3.3%	15 4.7%	8 3.9%	8 6.1%
Need for improvements	69 7.4%	30 9.8%	21 11.8%	9 7.1%	-	-	-	-	23 7.2%	10 8.3%	12 6.5%	17 5.1%	10 4.9%	7 5.6%
Fees are too high/ no incentives	31 3.3%	9 3.0%	5 2.9%	4 3.1%	-	-	-	-	15 4.8%	8 6.6%	7 3.7%	6 2.0%	3 1.4%	4 2.8%
Bad law/not needed/ not enforced	13 1.4%	10 3.4%	3 1.5%	8 6.0%	-	-	-	-	-	-	-	3 0.8%	1 0.6%	1 1.1%

6. For what reasons do you provide that rating?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	943	307	177	130	-	-	-	-	314	124	190	322	197	125
Other reasons	6	4	2	1	-	-	-	-	1	1	-	1	-	1
	0.6%	1.2%	1.2%	1.1%					0.4%	1.1%		0.3%		0.7%
No Reasons	32	-	-	-	-	-	-	-	13	4	9	19	12	7
	3.4%								4.2%	3.3%	4.9%	5.9%	6.2%	5.4%
UNWEIGHTED TOTAL	930	305	174	131	-	-	-	-	310	117	193	315	186	129
Don't Know	104	67	43	25	-	-	-	-	22	3	19	14	8	6
	11.0%	21.9%	24.0%	19.0%					7.2%	2.6%	10.1%	4.5%	4.1%	5.2%

D3. Which of the following age groups are you in. . . READ

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	2006	500	301	199	500	318	56	127	503	228	275	503	311	192
18-24 years	209	58	39	18	32	25	5	2	60	41	19	59	47	12
	10.4%	11.5%	13.1%	9.2%	6.4%	8.0%	8.8%	1.6%	12.0%	17.9%	7.1%	11.8%	15.1%	6.3%
25-34	349	85	64	21	103	67	12	24	82	39	42	79	51	28
	17.4%	17.0%	21.3%	10.6%	20.7%	21.2%	20.8%	19.2%	16.3%	17.3%	15.4%	15.6%	16.3%	14.6%
35-44	419	108	68	40	120	81	14	24	92	41	50	100	63	37
	20.9%	21.6%	22.7%	19.8%	24.0%	25.6%	25.6%	19.2%	18.2%	18.1%	18.3%	19.9%	20.3%	19.3%
45-54	405	99	49	49	116	67	13	36	100	38	61	91	52	39
	20.2%	19.7%	16.5%	24.6%	23.2%	21.2%	24.0%	28.0%	19.8%	16.9%	22.3%	18.1%	16.9%	20.2%
55-64	262	62	36	27	76	48	7	21	62	26	36	62	38	24
	13.1%	12.5%	11.9%	13.4%	15.3%	15.2%	12.0%	16.8%	12.3%	11.4%	13.1%	12.2%	12.1%	12.4%
65 years and over	318	88	43	45	52	28	5	19	91	34	57	87	48	39
	15.8%	17.5%	14.3%	22.5%	10.4%	8.8%	8.8%	15.2%	18.2%	15.1%	20.7%	17.2%	15.3%	20.4%
UNWEIGHTED TOTAL	2006	500	300	200	500	250	125	125	503	217	286	503	302	201
Don't Know	43	1	1	-	-	-	-	-	16	7	9	26	12	13
	2.1%	0.2%	0.3%						3.3%	3.3%	3.3%	5.1%	4.0%	6.9%

D6. Which category represents the highest level of education you have completed...

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	2006	500	301	199	500	318	56	127	503	228	275	503	311	192
Some high school	242	48	25	23	48	29	6	13	76	25	51	69	24	45
	12.1%	9.7%	8.4%	11.7%	9.6%	9.2%	10.4%	10.4%	15.2%	11.2%	18.5%	13.7%	7.6%	23.6%
Graduated high school	457	128	65	63	84	38	11	36	122	48	75	122	78	44
	22.8%	25.6%	21.7%	31.4%	16.9%	12.0%	19.2%	28.0%	24.3%	20.9%	27.1%	24.3%	25.2%	22.9%
Some post secondary excluding university	354	48	31	17	113	61	14	39	101	50	51	92	62	29
	17.6%	9.5%	10.2%	8.5%	22.7%	19.2%	24.8%	30.4%	20.1%	22.1%	18.4%	18.2%	20.0%	15.3%
University/College graduated	916	271	177	93	252	188	25	39	192	101	90	202	138	64
	45.7%	54.1%	58.9%	46.9%	50.4%	59.2%	45.6%	30.4%	38.1%	44.5%	32.8%	40.2%	44.4%	33.3%
UNWEIGHTED TOTAL	2006	500	300	200	500	250	125	125	503	217	286	503	302	201
Don't Know	37	5	2	3	2	1	-	1	12	3	9	18	9	9
	1.9%	1.1%	0.8%	1.5%	0.5%	0.4%		0.8%	2.3%	1.3%	3.1%	3.6%	2.8%	4.8%

D8. Is your annual household income less than or greater than $50,000 before taxes?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	1506	-	-	-	500	318	56	127	503	228	275	503	311	192
Under $20,000	138	-	-	-	32	16	6	9	59	20	39	47	29	18
	9.2%				6.4%	5.2%	11.2%	7.2%	11.8%	8.7%	14.3%	9.3%	9.4%	9.1%
$20,000-$49,999	431	-	-	-	149	90	10	49	147	66	81	135	77	58
	28.6%				29.8%	28.4%	18.4%	38.4%	29.3%	29.1%	29.4%	26.8%	24.9%	29.9%
$50,000-$99,999	479	-	-	-	182	116	25	41	150	79	70	148	93	55
	31.8%				36.3%	36.4%	45.6%	32.0%	29.8%	34.9%	25.5%	29.3%	29.8%	28.6%
$100,000 or greater	161	-	-	-	76	55	5	16	43	20	23	43	34	9
	10.7%				15.2%	17.2%	8.8%	12.8%	8.5%	8.7%	8.3%	8.5%	11.0%	4.6%
UNWEIGHTED TOTAL	1506	-	-	-	500	250	125	125	503	217	286	503	302	201
Don't Know	297	-	-	-	62	41	9	12	104	42	62	131	77	54
	19.7%				12.3%	12.8%	16.0%	9.6%	20.8%	18.6%	22.6%	26.0%	24.8%	27.9%

D8. Is your annual household income less than or greater than $50,000 before taxes?

		BC			AB				SK			MB		
	TOTAL	TOTAL	GVRD/ VICTORIA	OTHER	TOTAL	URBAN	OTHER	RURAL	TOTAL	URBAN	RURAL	TOTAL	URBAN	RURAL
Total	500	500	301	199	-	-	-	-	-	-	-	-	-	-
Under $55,000	211	211	118	93	-	-	-	-	-	-	-	-	-	-
	42.2%	42.2%	39.4%	46.5%										
$55,000 or greater	231	231	144	86	-	-	-	-	-	-	-	-	-	-
	46.1%	46.1%	48.0%	43.3%										
UNWEIGHTED TOTAL	500	500	300	200	-	-	-	-	-	-	-	-	-	-
Don't Know	58	58	38	20	-	-	-	-	-	-	-	-	-	-
	11.7%	11.7%	12.6%	10.2%										

APPENDIX C
TABLE OF CONFIDENCE BOUNDS

STATISTICAL TOLERANCES

Probability Level: 95% confidence interval (19 times out of 20)

Range of error is:

Where percentage shown is

With a sample size of	2% or 98%	4% or 96%	6% or 94%	8% or 92%	10% or 90%	12% or 88%	15% or 85%	20% or 80%	25% or 75%	30% or 70%	35% or 65%	40% or 60%	45% or 55%	50%
100		3.8	4.7	5.3	5.9	6.4	7.0	7.8	8.5	9.0	9.3	9.6	9.8	9.8
150		3.1	3.8	4.3	4.8	5.2	5.7	6.4	6.9	7.3	7.6	7.8	8.0	8.0
200		2.7	3.3	3.8	4.2	4.5	4.9	5.5	6.0	6.4	6.6	6.8	6.9	6.9
250	1.7	2.4	2.9	3.4	3.7	4.0	4.4	5.0	5.4	5.7	5.9	6.1	6.2	6.2
300	1.6	2.2	2.7	3.1	3.4	3.7	4.0	4.5	4.9	5.2	5.4	5.5	5.6	5.7
400	1.4	1.9	2.3	2.7	2.9	3.2	3.5	3.9	4.2	4.5	4.7	4.8	4.9	4.9
500	1.2	1.7	2.1	2.4	2.6	2.8	3.1	3.5	3.8	4.0	4.2	4.3	4.4	4.4
600	1.1	1.6	1.9	2.2	2.4	2.6	2.9	3.2	3.5	3.7	3.8	3.9	4.0	4.0
800	.97	1.4	1.6	1.9	2.1	2.3	2.5	2.8	3.0	3.2	3.3	3.3	3.4	3.5
1,000	.87	1.2	1.5	1.7	1.9	2.0	2.2	2.5	2.7	2.8	3.0	3.0	3.1	3.1
1,200	.79	1.1	1.3	1.5	1.7	1.8	2.0	2.3	2.5	2.6	2.7	2.8	2.8	2.8
1,500	.71	1.0	1.2	1.4	1.5	1.6	1.8	2.0	2.2	2.3	2.4	2.5	2.5	2.5
2,000	.61	.86	1.0	1.2	1.3	1.4	1.6	1.7	1.9	2.0	2.1	2.1	2.2	2.2
3,000	.47	.70	.81	.98	1.1	1.1	1.3	1.4	1.6	1.6	1.7	1.7	1.8	1.8

How to read: If sample is 500 then 4% could be plus or minus 1.7% 19 times out of 20

Canadian Advertising Research Foundation, Media Research Standards Procedures, 1984.

APPENDIX E

STAKEHOLDER LIST

APPENDIX E STAKEHOLDER LIST

Collectors/Processors - January 21, 2005

Company	BCUOMA	AUOMA	SARRC	MARRC
A-1 Environmental Service				MARRC
Active Chemicals Ltd.	BCUOMA			
Aimes Used Oil & Filter Depot				MARRC
AJ Enterprises			SARRC	MARRC
Amity Plastics Ltd.		AUOMA		
BC Hydro	BCUOMA			
B-Line Sanitation			SARRC	
BoVenture Holdings Inc			SARRC	
Brent Graham Ltd.	BCUOMA			
Brians Oilfield Rentals		AUOMA		
C & D Plastic Recycle Services	BCUOMA	AUOMA	SARRC	
Cameron Bros Oil & Water Transport Ltd.		AUOMA		
Canada Petroleum Corp. (CPC)	BCUOMA			
Canadian Oil Recycle Corp.		AUOMA		
Canadian Plastic Recovery Ltd.		AUOMA		
Chem-Est Industries			SARRC	
Clean Harbors Canada, Inc.	BCUOMA	AUOMA		
Clearwater Recovery Systems Inc.		AUOMA		
Collin Vacuum & Tank Trucks Ltd.		AUOMA		
Crush Environmental Services			SARRC	
Custom Environmental Services Ltd.		AUOMA		
Custom Industrial Cleaners		AUOMA		
Custom Industrial Cleaners		AUOMA		
D K Recycling		AUOMA		
Deanos Disposal Service			SARRC	
Denesoline Environment Ltd.		AUOMA		
Deuce Disposal Ltd.		AUOMA		
Double T Enterprises Inc			SARRC	
Duff's Bulk Service Ltd.		AUOMA		
Duncans Environmental Services			SARRC	
E.I.L. Environmental Services Inc.		AUOMA		
ECL Environmental Services Ltd.		AUOMA		
Eco-Max Inc.		AUOMA		
EcoOil Recycling Centre				MARRC
Enviro West Inc.	BCUOMA	AUOMA	SARRC	MARRC
Enviroclean Filter Recycling	BCUOMA			
EnviroSORT Inc.		AUOMA	SARRC	
Envirotec Waste Management Inc		AUOMA	SARRC	MARRC
Eveready Industrial Services Corp.		AUOMA		
Evergreen Recycling Solutions		AUOMA		
Fairy Glen Sewage 2000			SARRC	
Graf Equipment		AUOMA		
Gregg Distributors Co. Ltd.		AUOMA		

H & H Disposal Inc			SARRC	
Harris Oilfield Construction Ltd			SARRC	
Hazco Environmental Services Ltd.	BCUOMA	AUOMA	SARRC	
Hetherington Industries Ltd.	BCUOMA			
IMC Kalium, Belle Plaine Mossaic, Belle Plaine		AUOMA		
Joint Environmental Technologies Inc			SARRC	
JP Enterprises Inc			SARRC	
KT EnviroClean Inc				MARRC
L. & P. Disposals		AUOMA		
Lamon Disposal Ltd			SARRC	
LePier Oil Co. Inc				MARRC
Little Dipper Holdings Ltd.		AUOMA	SARRC	
LoRon International		AUOMA		
M & R Mobile Grind/PAC West	BCUOMA			
Marvac Services		AUOMA		
Merlin Plastics Supply Inc.	BCUOMA			
Mico J Distributors Ltd.		AUOMA		
Miller Environmental Corporation			SARRC	MARRC
Mosaic, Belle Plaine		AUOMA		
N.E.A.R. North Services Ltd.	BCUOMA			
Newalta Corporation	BCUOMA	AUOMA	SARRC	MARRC
Northern Environmental Recovery Ltd			SARRC	MARRC
Nu-Plastic Services Division of 579445 BC Ltd.	BCUOMA			
On-Site Oil Filter Recycling Inc.		AUOMA		
Pat's Off-Road Transport Ltd.	BCUOMA	AUOMA	SARRC	
Plastic Collectors Inc.		AUOMA	SARRC	
Pnewko Trucking Ltd.	BCUOMA	AUOMA		
Powers Livestock Transport Ltd			SARRC	
Precision Plastics	BCUOMA	AUOMA		MARRC
Proeco Enviroservices Ltd.		AUOMA	SARRC	
Purcell Recycling	BCUOMA			
R & G Transport Ltd			SARRC	
R.B.Williams Industrial Supply Ltd.	BCUOMA	AUOMA	SARRC	
Regens Disposal Ltd			SARRC	
Re-Solvv Recycling Ltd			SARRC	
Roy Holloway Equipment Rentals		AUOMA		
Safety-Kleen Canada Inc.	BCUOMA			
Sand Hill Contracting Ltd			SARRC	
Sands Septic Cleaning Ltd			SARRC	
Slick Recovery (621779 Sask Ltd)		AUOMA	SARRC	
Smithbrook Mud Service Ltd./Waste Mgmt.		AUOMA		
Special Recycling Control Corporation			SARRC	
Special Waste Disposal BC Inc.	BCUOMA			
Sumas Environmental Services Inc.	BCUOMA			
Summit Environmental Services Ltd.		AUOMA		
Suncor Energy Inc.		AUOMA		
Superior Filter Recycling Inc.	BCUOMA			
SwanAlta Trucking Ltd.		AUOMA		

Syncrude Canada Ltd.		AUOMA		
T. Doyle Transport Ltd			SARRC	
Tamidy Tams Trucking		AUOMA		
Three Star Services Ltd.		AUOMA		
Tisdale Disposals Ltd			SARRC	
TLC Recyclers Ltd.		AUOMA		
Tolko Industries Ltd.		AUOMA		MARRC
Town & Country Vac. Truck Service			SARRC	
Tri-Arrow Industrial Recovery Inc.	BCUOMA			
Tri-B Oil Company Inc.			SARRC	MARRC
Trimac Transportation Services Inc			SARRC	
United Chemical Services Ltd.			SARRC	MARRC
Van Brabant Oil Ltd.		AUOMA		
WasteCo Environmental Services Ltd.		AUOMA	SARRC	
Wasteman Disposal	BCUOMA			
WRS Waste & Recycling Services (3763456 MB Ltd)			SARRC	MARRC
Wutzke Garbage & Recycle Services		AUOMA		
XPotential Products Inc.		AUOMA		MARRC
Total	26	57	43	17

Associations - January 21, 2005

Company	BCUOMA	AUOMA	SARRC	MARRC
Alberta Association of Municipal Districts & Counties		AUOMA		
Alberta Bottle Depot Association		AUOMA		
Alberta Environment		AUOMA		
Alberta Environment Network		AUOMA		
Alberta Motor Transport Association		AUOMA		
Alberta Plastic Recycling Association		AUOMA		
Automotive Industries Association of Canada		AUOMA		
Automotive Service & Repair Association		AUOMA		
BC Automotive Retailers Association	BCUOMA			
Canadian Association of Oilwell Drilling Contractors		AUOMA		
Canadian Council of Grocery Distributors		AUOMA		
Canadian Federation of Independent Business		AUOMA		
Canadian Filter Manufacturers & Distributors		AUOMA		
Canadian Petroleum Association		AUOMA		
Canadian Portland Cement Association		AUOMA		
Consumers Association Of Canada			SARRC	
Consumers Association of Canada (Alberta)		AUOMA		
Council of Forest Industries	BCUOMA			
Motor Dealers Association of Alberta		AUOMA		
New Car Dealers Association of BC	BCUOMA			
Petroleum Services Association of Canada		AUOMA		
Recycling Council of Alberta		AUOMA		
Recycling Council of British Columbia	BCUOMA			
Retail Council of Canada		AUOMA		
Saskatchewan Association Of Health Associations			SARRC	

Saskatchewan Association Of Rehabilitation Centres			SARRC		
Saskatchewan Association Of Rural Municipalities			SARRC		
Saskatchewan Automobile Dealers Association			SARRC		
Saskatchewan Chamber Of Commerce			SARRC		
Saskatchewan Environmental Society			SARRC		
Saskatchewan Mining Association			SARRC		
Saskatchewan Trucking Association			SARRC		
Saskatchewan Urban Municipalities Association			SARRC		
Saskatchewan Waste Reduction Council			SARRC		
The Truck Loggers Association	BCUOMA				
Tire Recycling Management Board		AUOMA			
Union of BC Municipalities	BCUOMA				
Westcoast Environmental Law Association	BCUOMA				
Western Canada Tire Dealers Association	BCUOMA				
Total		8	20	11	0

Board Members - January 21, 2005

Company	BCUOMA	AUOMA	SARRC	MARRC
Bert Weichel			SARRC	
Brian Schmidt				MARRC
Christine Houghton	BCUOMA			
Dave Dingle		AUOMA		
David Schick	BCUOMA			
Debbie Dresen		AUOMA		
Don Taylor			SARRC	
Doug Waldie	BCUOMA			
Dr. Victor Chang			SARRC	
Erhard Poggemiller			SARRC	
Garnet Brimacombe	BCUOMA			
Grant Caven		AUOMA		
Jerry Coben			SARRC	
Jim Funk		AUOMA		
Jim Gates			SARRC	
Joe Casciano				MARRC
Keith Micklash				MARRC
Keith Tully		AUOMA		
Ken Carels				MARRC
Lee Wilkie		AUOMA		
Lenore Indarsingh				MARRC
Lutz Ehrentraut				MARRC
Lyle Hoffman		AUOMA		
Natalie Zigarlick	BCUOMA			
Pat James		AUOMA		
Patrick Kane		AUOMA		
Richard Voyer	BCUOMA	AUOMA		
Robert Seidel		AUOMA		
Rod Rosenfelt	BCUOMA		SARRC	

Russ McLeod			SARRC	
Ted Stoner	BCUOMA			
Todd Westwood				MARRC
Wayne Dahlen	BCUOMA			
Total	9	11	8	7

Suppliers - January 21, 2005

Company	BCUOMA	AUOMA	SARRC	MARRC
49 North Forwarding Ltd			SARRC	
7-Eleven Canada				MARRC
AB Impex Inc.		AUOMA		
Ace Hardware Canada Ltd.				MARRC
Acklands - Grainger Inc			SARRC	
Advic Bearing and Auto Ltd.				MARRC
AFD Lubricants		AUOMA		
AGCO Corp			SARRC	
Agip Canada Inc.	BCUOMA	AUOMA	SARRC	MARRC
Air BP Canada Ltd			SARRC	
Airparts Network Ltd.				MARRC
Alberta Diesel A Division of Industrial Engines Ltd		AUOMA		
Alco Resources Inc.	BCUOMA			
Alline Supply Inc.				MARRC
Altrom Canada	BCUOMA	AUOMA	SARRC	MARRC
AMSOIL Inc.	BCUOMA	AUOMA	SARRC	MARRC
Applied Industrial Technologies Ltd			SARRC	
ArvinMeritor			SARRC	
ATP Inc	BCUOMA	AUOMA	SARRC	MARRC
Auto Trans Inc			SARRC	
Baldwin Filters			SARRC	
Barrett Marketing Group Ltd	BCUOMA	AUOMA	SARRC	MARRC
Bestbuy Distributors Ltd	BCUOMA	AUOMA	SARRC	MARRC
Blu Lubricants, Inc.	BCUOMA			
BMW Canada Inc.	BCUOMA	AUOMA	SARRC	MARRC
Bosch Rexroth Canada Corp.	BCUOMA			
BOSS Lubricants			SARRC	
Boss Trading Ltd.	BCUOMA			
Bow-Wow Parts of BC Ltd.	BCUOMA			
Brandon Petroleum Sales Ltd.		AUOMA		
Brenntag Canada Inc			SARRC	
Buhler Versatile Inc.				MARRC
Burkolly Distributors Ltd.		AUOMA	SARRC	
Calgary Mack Sales Ltd.		AUOMA		
Canada Safeway Ltd	BCUOMA	AUOMA	SARRC	MARRC
Canadian Tire Corp Ltd	BCUOMA	AUOMA	SARRC	MARRC
Can-Four Industrial Supplies Ltd	BCUOMA			
Castrol Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Champion Laboratories Inc.	BCUOMA	AUOMA	SARRC	MARRC

Chevron Canada Ltd.	BCUOMA	AUOMA		
Chris Page & Associates Ltd	BCUOMA	AUOMA	SARRC	
Churchill Marine Tank Farm Co.				MARRC
Cleanair of Manitoba				MARRC
CNH Canada Ltd	BCUOMA	AUOMA	SARRC	MARRC
Complete Lube Supply Ltd	BCUOMA	AUOMA	SARRC	MARRC
Coneco Equipment Inc.	BCUOMA	AUOMA		
CORE-MARK International Inc	BCUOMA	AUOMA	SARRC	MARRC
Costco Wholesale Canada Ltd.	BCUOMA	AUOMA	SARRC	MARRC
CPT Canada Power Technology Ltd.	BCUOMA	AUOMA	SARRC	MARRC
Crosstown Truck & Tire (Brooks) Ltd.		AUOMA		
Cummins Western Canada			SARRC	
Daewoo Auto Canada Inc.				MARRC
DaimlerChrysler Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Dana Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Del West Hydraulic Services Ltd.		AUOMA		
DelTech Industries Inc	BCUOMA	AUOMA		
Detroit Diesel Allison B.C.	BCUOMA			
Doepker Industrial Equip Service			SARRC	
Donaldson Co Inc	BCUOMA	AUOMA	SARRC	MARRC
Edge Production Supplies Ltd.		AUOMA		
Elliott Industrial Petroleum Ltd.		AUOMA	SARRC	
Equipment Sales & Service Ltd.	BCUOMA	AUOMA		
EZ Lube		AUOMA		
Federated Co-operatives Ltd			SARRC	
Finning International	BCUOMA	AUOMA		
First Filter Service Ltd			SARRC	
FL Viscosity Oil Co	BCUOMA	AUOMA	SARRC	MARRC
Ford Motor Co of Canada Ltd	BCUOMA	AUOMA	SARRC	MARRC
Fort Garry Industries Ltd		AUOMA	SARRC	MARRC
Fred Deeley Imports Ltd			SARRC	
Freightliner LLC	BCUOMA	AUOMA	SARRC	MARRC
Fuchs Lubricants Canada Ltd			SARRC	
G. K. Industries Ltd	BCUOMA	AUOMA	SARRC	MARRC
Gem-Tar Inc	BCUOMA			
General Motors of Canada Ltd			SARRC	
Gir Del Hydraulic Services		AUOMA		
Greenland Corp.	BCUOMA	AUOMA		
Guardex Lubes Inc.		AUOMA		
Hastings Filters (Baldwin Filters Inc)	BCUOMA	AUOMA	SARRC	MARRC
Home Hardware Stores Ltd	BCUOMA	AUOMA	SARRC	MARRC
Honda Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Honeywell Consumer Prod Group	BCUOMA	AUOMA	SARRC	MARRC
HTS Hydraulic Technical Services Inc.		AUOMA		
Husky Energy Inc			SARRC	
Hydraulic Techologies Inc.	BCUOMA			
Hyundai Auto Canada	BCUOMA	AUOMA	SARRC	MARRC
Imperial Oil			SARRC	

Industrial Bulk Lubricants		AUOMA		
Industrial Truck Service Ltd			SARRC	
Internat Truck & Engine Corp			SARRC	
Irving Oil Ltd		AUOMA	SARRC	MARRC
Jimmy Diesel Parts Co.				MARRC
JKL Enterprises Inc.				MARRC
John Deere Limited	BCUOMA	AUOMA	SARRC	MARRC
King-O-Matic Industries Ltd	BCUOMA	AUOMA	SARRC	MARRC
Klassen Specialty Hydraulics Ltd	BCUOMA			
Kleen-Flo Tumbler Industries Ltd	BCUOMA	AUOMA	SARRC	MARRC
Kramer Ltd.			SARRC	
Kubota Canada Ltd	BCUOMA	AUOMA	SARRC	MARRC
L&D Distributors Ltd		AUOMA		
Land Rover Group Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Lemky Rural Repair				MARRC
London Drugs Ltd		AUOMA	SARRC	
Mack Sales & Service of Lethbridge Inc.		AUOMA		
Magnum Oil Mb. Ltd.				MARRC
Maryn International Ltd.		AUOMA		
Maxim Transportation Services Inc		AUOMA	SARRC	MARRC
Mazda Canada Inc			SARRC	
McGregor Filtering Equipment		AUOMA		
McGurrin Enterprises Ltd	BCUOMA			
Mercedes-Benz Canada Inc.	BCUOMA	AUOMA	SARRC	MARRC
MFTA Canada Inc			SARRC	
Micro-Ion Industrial Products Ltd.		AUOMA		
Midas Canada Inc			SARRC	
Midwest Detroit Diesel-Allison Ltd			SARRC	
Midwest Hydraulics Inc.				MARRC
Mid-West Supply Co.		AUOMA		
Mining Technologies Int'l Inc.				MARRC
Modern Sales Co-op			SARRC	
Moloney Electric		AUOMA		
Motion Industries (Canada) Inc.	BCUOMA	AUOMA	SARRC	MARRC
Motor Coach Industries Ltd		AUOMA	SARRC	MARRC
Mr. Lube Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
NemCo Resources Ltd		AUOMA	SARRC	MARRC
New Flyer Industries Ltd			SARRC	
Nissan Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
NORCAN Fluid Power		AUOMA	SARRC	
NORCAN Fluid Power (Kamloops) Ltd.	BCUOMA			
NORCAN Fluid Power Ltd. (Richmond)	BCUOMA			
Northern Industrial & Auto Ltd.				MARRC
Northern Titan Equipment Sales Ltd		AUOMA	SARRC	MARRC
Nortrux Inc.		AUOMA		
O & K Orenstein & Koppel - a Div of Terex Corp.		AUOMA		
Oak Point Auto Distributors				MARRC
Oil Mart Ltd.			SARRC	MARRC

Paccar of Canada Ltd Parts Div	BCUOMA	AUOMA	SARRC	MARRC
Pamco-EFX, Division of Enerflex Systems Ltd.	BCUOMA	AUOMA	SARRC	
Patron Equipment Supply Inc.		AUOMA		
Pauwels Canada Inc.		AUOMA	SARRC	MARRC
Pennzoil Quaker State Canada Co	BCUOMA	AUOMA	SARRC	MARRC
Petro-Canada Lubricants			SARRC	
Porsche Cars Canada Ltd.	BCUOMA	AUOMA		MARRC
Powell Equipment Ltd.				MARRC
Precambrian Wholesale Ltd.				MARRC
Premier Lubricants (2002) Ltd.		AUOMA		
Prolab Technolub Inc.		AUOMA		
Provincial Hydraulics Inc			SARRC	
PSC-Power Source Canada Ltd	BCUOMA	AUOMA	SARRC	
Radiator Specialty Co of Canada Ltd	BCUOMA	AUOMA	SARRC	MARRC
Redhead Equipment Ltd			SARRC	
Robert Bosch Inc	BCUOMA	AUOMA	SARRC	MARRC
S.W. Industrial Filter Tec Service			SARRC	
Safety-Kleen Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Saracan Services Ltd.		AUOMA		
Sears Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Shaws Enterprises Ltd.		AUOMA		
Shaw's Sales and Service Ltd	BCUOMA			
Shell Canada Products Ltd.	BCUOMA	AUOMA	SARRC	MARRC
Snowline Enterprises Ltd	BCUOMA			
Sodisco-Howden Group			SARRC	
Southwestern Petroleum Corp.	BCUOMA	AUOMA	SARRC	MARRC
Specialty Lubricants, Inc	BCUOMA			
Strongco Equipment		AUOMA	SARRC	
Strongco Inc., Sheridan Equip.				MARRC
Subaru Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Suzuki Canada Inc.	BCUOMA	AUOMA	SARRC	MARRC
Syzygy Auto Distribution Inc.				MARRC
TCS Crestwood Engineering Co. Ltd.	BCUOMA			
Teleflex Canda Limited Partnership	BCUOMA			
Terratech Equipment Inc.	BCUOMA		SARRC	MARRC
Texaco Lubricants Co.				MARRC
Texas Refinery Corp of Canada Ltd			SARRC	
The North West Company Inc	BCUOMA	AUOMA	SARRC	MARRC
Toyota Canada Inc	BCUOMA	AUOMA	SARRC	MARRC
Tracy Briggs Enterprises	BCUOMA			
TruServ Canada Cooperative Inc	BCUOMA	AUOMA	SARRC	MARRC
UAP Inc	BCUOMA	AUOMA	SARRC	MARRC
Union Tractor Ltd.	BCUOMA	AUOMA		
Uni-Select Western Inc.		AUOMA		MARRC
United Farmers of Alberta	BCUOMA	AUOMA	SARRC	
United Petroleum Products Inc	BCUOMA			
USI - AGI Prairies Inc			SARRC	
Valvoline Canada Ltd	BCUOMA	AUOMA	SARRC	MARRC

Volkswagen Canada Inc			SARRC	
Volvo Trucks Canada Inc			SARRC	
Wainbee Ltd	BCUOMA	AUOMA	SARRC	MARRC
Wallace & Carey Ltd			SARRC	
Wal-Mart Canada Inc			SARRC	
Waterous Detroit Diesel-Allison	BCUOMA	AUOMA		
Weatherford Artificial Lift Systems Ampscot Products and Services		AUOMA		
Weissach Performance Ltd	BCUOMA			
Westec Automotive Services	BCUOMA			
Western Turbo & Fuel Injection Ltd.				MARRC
Westfair Foods Ltd.	BCUOMA	AUOMA	SARRC	MARRC
Westpet Petroleum Inc.		AUOMA		
Westpower Equipment Ltd.		AUOMA		
Wittke Waste Equipment		AUOMA		
Worldpac Canada Inc.	BCUOMA	AUOMA		
Yamaha Motor Canada Ltd.	BCUOMA	AUOMA	SARRC	MARRC
Yetmans Ltd		AUOMA	SARRC	MARRC
Zellers Hudsons Bay Co	BCUOMA	AUOMA	SARRC	MARRC
Zetta Automotive Parts and Services	BCUOMA			
Total		94	115	114	91

APPENDIX F

INDIVIDUAL SURVEY QUESTION ANALYSIS

APPENDIX F INDIVIDUAL SURVEY QUESTION ANALYSIS

Statement "Letter"

The statement, as it appeared in the survey

Agreement/Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total
Associations	5.00 / 1	5.00 / 6	4.50 / 4	/ 0	4.82 / 12
Board members	5.00 / 6	5.00 / 6	4.86 / 7	5.00 / 3	4.95 / 22
Collectors/ Processors	4.50 / 14	4.55 / 20	4.33 / 15	3.67 / 3	4.65 / 31
Suppliers	4.63 / 32	4.73 / 33	4.66 / 35	4.60 / 25	4.68 / 56
Total	4.64 / 65	4.72 / 53	4.59 / 61	4.55 / 31	4.73 / 120

Average Response

Number of Respondents

Data represented in graphical format in:

- UOMA Survey Results by Group
- UOMA Survey Results by Group by Province
- UOMA Survey Results by Province

Statistical Findings Agreement/Importance

Although the analysis for each of the 24 questions shows a separate analysis for agreement and a separate analysis for importance, both can be read in the same manner. These pages will outline how to read the following statistical analysis for both agreement and importance.

The initial paragraph of the analysis deals primarily with the yellow section of the data table. This analysis looks at the average answers given by the groups surveyed. These groups are defined as: Stakeholder Associations, Board Members, Collectors/Processors, and Suppliers. The information found in this column is graphically represented in the UOMA Survey Results by Group radiograph.

The second paragraph deals with the information described by the blue section of the data table. The information found in this section is graphically represented in the UOMA Survey Results by Group by Province radiograph. In the data table the analysis focuses on variability in the answers, or how differently each of the groups in each of the provinces answered the question. In some cases outliers are mentioned and their effect on data is analyzed. An outlier is an answer of which there are significantly less occurrences of, and is very different from answers given by other respondents of that set. If the outlier is not representative of the group then the outlier is removed. A graphic representation of an outlier is shown in exhibit 1-1, circled in red.

Exhibit 1-1

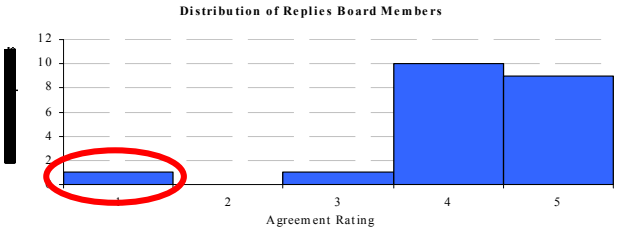
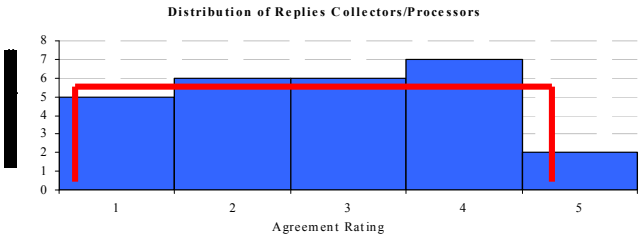


Exhibit 1-2



There are also cases where answers to the question show a high variability that is not due to an outlier. Instead, these answers show a distribution like the one shown in red in exhibit 1-2. This uniform distribution is caused by a high variability in the answers, and results in a high standard deviation. Although the average answer is 2.81, a look at all of the answers shows that this average does not give a full representation of agreement. In reality, respondents are as likely to rate the statement at 2, as they are at rating it 1,3,or 4. As a result the analysis mentions that the distribution of responses for a statement is uniform.

The third paragraph analyzes the green section of the data table. This section shows the average of answers across various UOMA associations, without differentiating groups. The information found in this row is graphically represented in the UOMA Survey Results by Province radiograph.

The final paragraph analyzes the orange section of the report, and makes a comment regarding the overall response given.

Please note:

- The number of respondents differs depending on how the groups get added (i.e., the respondents in the total columns do not always add up), this is because a respondent can belong to various groups, and Stakeholder Associations, and is therefore counted twice. The total number of surveys received for this analysis was 120, with one dummy variable included to represent the missing data for MARRC associations.
- Biases mentioned in the analysis are analyzed as follows:

  Average: **3 . 78**

  The above number shows the average of the responses to the statement. The first number (underlined) gives whether the average respondent marked the question as: extremely unimportant, unimportant, neither important nor unimportant, important, extremely important, strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree. The numbers behind the decimal point (circled) illustrate the bias shown by the data. This bias is related to the distribution of the questions:

Exhibit 1-3

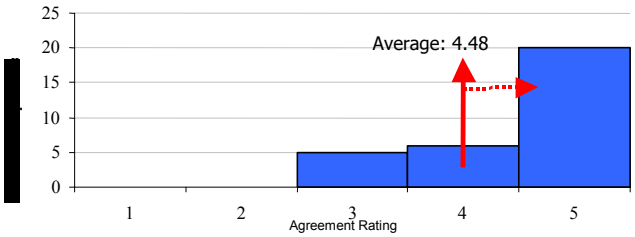
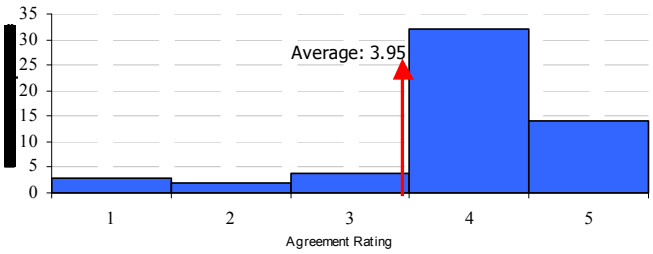


Exhibit 1-4



In exhibit 1-3, the averages of responses is 4, or agree. However, a number of respondents have also chosen strongly agree, and they make up a larger number than those who chose neutrality or agreement. As a result, it can be said that respondents show agreement with a bias towards strong agreement.

Furthermore, the bias shown by respondents was broken down into levels: a low bias (between 0.10 and 0.349), a medium/moderate bias (between 0.35 and 0.649), and a high/strong bias (between 0.65 and 0.90). If a bias fell between 0.00 and 0.1 or 0.90 0.99, the bias was disregarded. For exhibit 1-4, the average is 3.95. However, due to the high bias the average of responses is treated as a 4, or agreement. Exhibit 1-3 therefore shows that respondents are in agreement with a statement, and illustrate a moderate bias for strong agreement.

The skew portion of the analysis looks at the distribution of the data. A uniform distribution is typified by exhibit 1-2. A left skew distribution is typified by exhibit 1-1. An extreme left skew is illustrated by exhibit 1-5, whereas a normal distribution is shown in Exhibit 1-6.

Exhibit 1-5

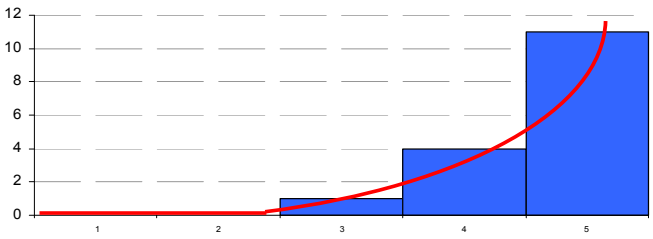
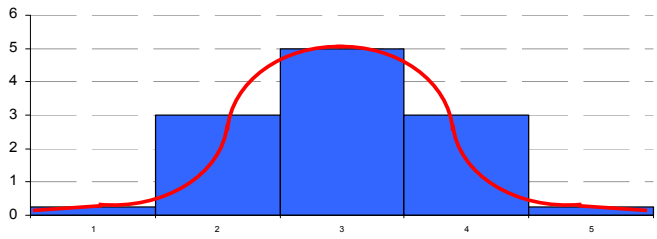


Exhibit 1-6



Statement A

Used oil and related materials should be collected and removed from the waste stream.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	5.00 / 6	4.50 / 4	/ 0	4.82 / 11	extreme left skew
Board members	5.00 / 6	5.00 / 6	4.86 / 7	5.00 / 3	4.95 / 22	extreme left skew
Collectors/ Processors	4.50 / 14	4.55 / 20	4.33 / 15	3.67 / 3	4.65 / 31	extreme left skew
Suppliers	4.63 / 32	4.73 / 33	4.66 / 35	4.60 / 25	4.68 / 56	extreme left skew
Total	4.64 / 65	4.72 / 53	4.59 / 61	4.55 / 31	4.73 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	5.00 / 6	4.75 / 4	/ 0	4.91 / 11	extreme left skew
Board members	5.00 / 6	5.00 / 6	5.00 / 7	5.00 / 3	5.00 / 22	extreme left skew
Collectors/ Processors	4.75 / 14	4.84 / 20	5.00 / 15	5.00 / 3	4.90 / 31	extreme left skew
Suppliers	4.78 / 32	4.88 / 33	4.76 / 35	4.79 / 25	4.78 / 56	extreme left skew
Total	4.80 / 65	4.89 / 53	4.85 / 61	4.83 / 31	4.86 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement A is not significantly variable. Stakeholder Associations, Collectors/Processors, Board Members and Suppliers agree and exhibit a high bias for strong agreement.

Within the four provincial associations and their respective member groups, there is little variability. Agreement is strongest with BCUOMA Stakeholder Associations, AUOMA Stakeholder Associations, BCUOMA Board Members, and AUOMA Board Members. MARRC Collectors/Processors (3.67) indicate the lowest agreement rating. Overall, none of the groups display a significant standard deviation in their agreement, indicating that groups are generally in consensus.

There exists some variability between the four provincial associations. Although all provincial associations indicate that they agree, AUOMA members indicate a high bias towards strong agreement, whereas BCUOMA (4.64), SARRC (4.59), and MARRC (4.55) indicate a moderate bias.

Overall, respondents are in agreement or strong agreement with used oil and related materials being collected and removed from the waste stream.

Statistical Findings Importance

The rated importance of statement A exhibits variability, ranging between somewhat important to extremely important. Stakeholder Associations, and Board Members indicate that the statement is extremely important with no significant bias. Collectors/Processors rate statement A as somewhat important with a strong bias for extreme importance, while Suppliers exhibit a moderate bias for extreme importance.

Within the four provincial associations and their respective member groups, there exists little variability. Board Members (5.0), AUOMA Stakeholder Associations (5.0), BCUOMA Stakeholder Associations (5.0), SARRC Collectors/Processors (5.0), and MARRC Collectors/Processors (5.0) indicate the highest importance ratings. SARRC Stakeholder Associations (4.75), and all Suppliers indicate the lowest importance scores. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that groups are generally in consensus.

There exists little variability between the four provincial associations. Importance is rated as somewhat important with a strong bias towards extreme importance.

Overall, respondents believe that used oil and related materials being collected and removed from the waste stream is important.

Comments

Comments indicate that groups are in consensus over the high importance of Statement A.

- "Suppliers have a social and corporate responsibility to collect and remove materials properly from the beginning."
- "If you don't collect it, where would it go?"
- "Oil is a non-renewable resource, so for environmental reasons it should be removed from the waste system."
- "For the health of the earth and ourselves."
- "Collection is important because there are good uses for used oil and related materials."
- "Collecting is the most important part of a waste diversion program."
- "Used oil and related materials need to be collected so that they can be recycled easily and efficiently."
- "The collection of used oil and related materials is a major driver of UOMA, and is necessary for the financial well being for many companies."
- "Collection is necessary for our financial well-being."

Statement B

Used oil and related materials, once collected, should be reprocessed or recycled.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.83 / 6	4.75 / 4	/ 0	4.73 / 11	normal
Board members	4.83 / 6	4.40 / 6	4.71 / 7	5.00 / 3	4.71 / 22	extreme left skew
Collectors/ Processors	4.85 / 14	4.79 / 20	4.50 / 15	4.50 / 3	4.77 / 31	extreme left skew
Suppliers	4.55 / 32	4.56 / 33	4.38 / 35	4.46 / 25	4.51 / 56	extreme left skew
Total	4.65 / 65	4.65 / 53	4.47 / 61	4.52 / 31	4.63 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	5.00 / 6	4.75 / 4	/ 0	4.82 / 11	extreme left skew
Board members	4.67 / 6	4.60 / 6	4.57 / 7	5.00 / 3	4.67 / 22	extreme left skew
Collectors/ Processors	4.91 / 14	4.89 / 20	4.85 / 15	4.50 / 3	4.86 / 31	extreme left skew
Suppliers	4.72 / 32	4.75 / 33	4.50 / 35	4.63 / 25	4.61 / 56	extreme left skew
Total	4.74 / 65	4.80 / 53	4.60 / 61	4.66 / 31	4.70 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement B is somewhat variable. Stakeholder Associations, Collectors/Processors, and Board Members agree and exhibit a high bias for strong agreement. However, Suppliers exhibit a moderate bias for strong agreement.

Within the four provincial associations and their respective member groups, there is little variability. Agreement is strongest with MARRC Board Members (5.0), and lowest with BCUOMA Stakeholder Associations. In general, responses range between a moderate bias (SARRC Suppliers), and a high bias for strong agreement (BCUOMA Collectors/Processors). Overall, none of the groups display a significant standard deviation in their agreement, indicating that groups are generally in consensus.

There exists some variability between the four provincial associations. Although all provincial associations indicated that they agree, AUOMA members (4.65) and BCUOMA members (4.65) indicated a high bias towards strong agreement, whereas SARRC members (4.47), MARRC members (4.52) indicated a moderate bias.

Overall, respondents are in agreement with used oil and related materials, once collected, being reprocessed or recycled.

Statistical Findings Importance

The rated importance of statement B exhibits little variability, with importance indicated as somewhat important with either a moderate or strong bias towards extremely important. Stakeholder Associations, and Collectors/Processors indicate that the statement is somewhat important with a strong bias. Board Members and Suppliers rate statement B as somewhat important with a moderate bias for extreme importance.

Within the four provincial associations and their respective member groups, there exists little variability. MARRC Board Members (5.0), AUOMA Stakeholder Associations, BCUOMA Collectors/Processors (4.91), and SARRC Collectors/Processors (4.89) indicate the highest importance ratings. BCUOMA Stakeholder Associations (4.0), SARRC Suppliers (4.50), and MARRC Collectors/Processors (4.50) indicate the lowest importance scores. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that groups are generally in consensus.

There exists little variability between the four provincial associations. Importance is rated as somewhat important with a strong bias towards extreme importance with the exception of SARRC, which illustrates a moderate bias.

Overall, respondents indicate that it is important for used oil and related materials, once collected, to be reprocessed or recycled is important.

Comments

While all of the stakeholders involved have different ideas of how the collected materials should be recycled or reprocessed, overall they are bias towards recycling or reprocessing the material after it has been collected. Collectors/Processors are more focused on how the materials are recycled, while Suppliers and Board Members focus more on simply reusing the materials. There are general questions about the definitions of recycling and reprocessing.

- "Used oil should be recycled or reprocessed, as long as this is done in an environmentally sound manner, some forms of recycling and reprocessing can be counter productive."
- "Used oil and related materials need to be used and reused as much as possible and then have a final home in energy recovery."
- "Used oil and related materials need to be refined first, and fueled second."
- "For the ongoing fiscal sustainability of the program it is essential that we recycle and reprocess what we have collected."
- "What is the alternative?"
- "Used oil and related materials should not be sold offshore, they should be reprocessed and put back into our market."
- "Instead of using up raw materials, we should try to sustain the resources that we get."

Statement C

Private industry should be responsible for collecting and reprocessing or recycling used oil materials.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.17 / 6	3.50 / 4	/ 0	3.27 / 11	-
Board members	4.50 / 6	4.60 / 6	4.57 / 7	5.00 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	4.71 / 14	4.50 / 20	4.33 / 15	4.33 / 3	4.52 / 31	extreme left skew
Suppliers	3.77 / 32	3.78 / 33	3.85 / 35	3.79 / 25	3.78 / 56	left skew
Total	4.10 / 65	4.02 / 53	4.03 / 61	3.97 / 31	4.08 / 120	
Distribution	left skew	extreme left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.17 / 6	3.25 / 4	/ 0	3.18 / 11	normal
Board members	4.33 / 6	4.60 / 6	4.14 / 7	5.00 / 3	4.43 / 22	extreme left skew
Collectors/ Processors	4.75 / 14	4.58 / 20	4.50 / 15	4.33 / 3	4.59 / 31	extreme left skew
Suppliers	3.87 / 32	4.00 / 33	4.09 / 35	4.17 / 25	3.89 / 56	left skew
Total	4.12 / 65	4.15 / 53	4.14 / 61	4.28 / 31	4.10 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement C is considerably variable. Stakeholder Associations are neutral towards the statement and display a low bias towards agreement. Suppliers, who are also neutral, display a strong bias towards agreement. Board Members and Collectors/Processors agree with statement C and display a moderate bias towards strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Agreement is strongest with MARRC Board Members (5.0), BCUOMA Collectors/Processors (4.71), and AUOMA Board Members (4.60). Stakeholder Associations indicated the lowest agreement rating, indicating neutrality to statement C. Overall, none of the groups display a significant standard deviation in their agreement, indicating that groups are generally in consensus.

There exists no significant variability between the four UOMA provincial associations. All provincial associations indicated that they agree with statement C and exhibit no significant bias for strong agreement or neutrality.

Overall, respondents agree that private industry should be responsible for collecting and processing or recycling used oil materials.

Statistical Findings Importance

The importance rating for statement C is highly variable. Stakeholder Associations and Suppliers are neutral towards the statement and display a low bias indicating the statement is somewhat important. Board Members and Collectors/Processors indicate that the statement is somewhat important and exhibit a moderate bias towards rating it extremely important.

Within the four provincial associations and their respective member groups, there exists little variability MARRC Board Members (5.0), BCUOMA Collectors/Suppliers (4.75), AUOMA Board Members (4.60), and AUOMA Collectors/Processors (4.60) indicate the highest importance ratings. Stakeholder Associations indicate the lowest importance scores, indicating neutrality to statement C. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that groups are generally in consensus.

There exists little variability between the four UOMA provincial associations. Importance is rated as somewhat important with a low bias towards extreme importance.

Overall, respondents indicate that it is important that private industry should be responsible for collecting and reprocessing or recycling used oil materials.

Comments

For statement C, comments range from a strong agreement to statement C to a neutrality of the statement.

- "Private industry has an obligation to be the ones responsible, because they are the user and the one who profits."
- "It is more important that the program is run, than by whom it is run."
- "This is not a government bureaucracy, private industry will run the program far better because there is competition."
- "Industry is technically better prepared to take responsibility than government, industry they will be more effective."
- "It is ethically appropriate to have industry responsible for collecting and reprocessing or recycling used oil materials."

Statement D

Private industry should ultimately be self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.50 / 6	2.75 / 4	/ 0	3.18 / 11	extreme left skew
Board members	3.80 / 6	4.20 / 6	4.29 / 7	4.00 / 3	4.10 / 22	extreme left skew
Collectors/ Processors	2.83 / 14	2.50 / 20	2.57 / 15	3.00 / 3	2.68 / 31	inverse normal
Suppliers	3.58 / 32	3.50 / 33	3.56 / 35	3.46 / 25	3.58 / 56	extreme left skew
Total	3.41 / 65	3.26 / 53	3.36 / 61	3.47 / 31	3.41 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.50 / 6	2.50 / 4	/ 0	3.09 / 11	normal
Board members	3.60 / 6	4.00 / 6	4.00 / 7	4.33 / 3	3.95 / 22	left skew
Collectors/ Processors	3.00 / 14	3.53 / 20	3.67 / 15	4.00 / 3	3.44 / 31	inverse normal
Suppliers	3.77 / 32	3.77 / 33	3.94 / 35	3.87 / 25	3.87 / 56	extreme left skew
Total	3.57 / 65	3.69 / 53	3.79 / 61	3.93 / 31	3.71 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Respondents indicate a neutral stance regarding this statement. However, considerable variability exists between the groups in each province. Whereas Board Members were most likely to be neutral with a strong bias towards agreement, Stakeholder Associations tended to be neutral with a bias towards disagreeing. SARRC Stakeholder Associations illustrate an outlier in responding to this question, by disagreeing with a bias towards agreement. MARRC Board Members, MARRC Collectors/Processors, SARRC Board Members, and AUOMA Board Members all agree with the statement.

For Collectors/Processors, agreement with statement D shows a high standard deviation. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at each rating level (1 to 5) averaging to a neutral response. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that Stakeholder Associations, Suppliers and Board Members are generally in consensus within their groups.

There is considerable variability in answers between organizations. MARRC members were most likely to score neutral with a high bias for agreement (3.47), followed by BCUOMA members (3.41). SARRC (3.36) and AUOMA(3.26) members scored the lowest bias towards agreement.

Overall, respondents neither agree nor disagree with private industry being ultimately self-sufficient in collecting and reprocessing or recycling used oil materials without program support. However, a moderate tendency for choosing agreement does exist.

Statistical Findings Importance

Stakeholders who were surveyed generally rate importance between neutral and somewhat important. However, there was considerable variability between groups. Board Members score the statement as somewhat important, whereas Suppliers score neutral with a medium bias towards somewhat important. Stakeholder Associations also score neutral with minimal bias. Collectors/Processors score lowest, rating the statement as somewhat unimportant with a strong bias towards neutrality.

AUOMA Collectors/Processors, SARRC Collectors/Processors, SARRC Stakeholder Associations, and BCUOMA Collectors/Processors rate the statement as somewhat unimportant. MARRC, SARRC and AUOMA Board Members rate the statement as somewhat important.

For Collectors/Processors and Board Members, importance rating for statement D shows a high standard deviation. The standard deviation is not due to outliers; instead the cause is a relatively uniform distribution of responses at each rating level (1 to 5) averaging to a neutral response. Overall, none of the other groups display a significant standard deviation in their importance rating, indicating that Stakeholder Associations, and Suppliers are generally in consensus within their groups.

There was considerable variability not only between groups, but also between the provincial associations. MARRC members rate the statement as neutral with a strong bias towards somewhat important (3.98), followed by SARRC (3.79), AUOMA (3.69) and finally BCUOMA (3.57).

Overall respondents indicate that it is neither important nor unimportant for private industry being ultimately self-sufficient in collecting and reprocessing or recycling used oil materials without program support.

Comments

In general, comments indicate respondent neutrality with the statement. However there exists an overall bias towards agreement.

- "Used oil and related materials have a market value and it should be the market that dictates the value and market pricing."
- "While private industry could be self-sufficient in collecting and reprocessing or recycling used oil, it cannot be for filters and containers."
- "With proper guidance and regulations, the self-sufficiency of private industry is the right long-term goal."
- "I believe it would be devastating to the industry if the program were to become self-sufficient. UOMA has created a false economy prompting participants to 'give away' a good portion of the recycling incentive."
- "You don't necessarily need private industry, B.C. already had regulation on what could be done."

Statement E

All used oil material collected should be delivered to a government-approved reprocessor or recycler.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.17 / 6	4.75 / 4	/ 0	4.36 / 11	normal
Board members	4.60 / 6	4.40 / 6	4.57 / 7	4.67 / 3	4.55 / 22	extreme left skew
Collectors/ Processors	4.71 / 14	4.55 / 20	4.33 / 15	4.33 / 3	4.48 / 31	extreme left skew
Suppliers	4.13 / 32	4.21 / 33	4.17 / 35	4.12 / 25	4.18 / 56	extreme left skew
Total	4.33 / 65	4.33 / 53	4.30 / 61	4.19 / 31	4.34 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.33 / 6	4.75 / 4	/ 0	4.45 / 11	extreme left skew
Board members	4.40 / 6	4.60 / 6	4.57 / 7	4.50 / 3	4.53 / 22	extreme left skew
Collectors/ Processors	4.83 / 14	4.74 / 20	4.57 / 15	4.33 / 3	4.62 / 31	extreme left skew
Suppliers	4.13 / 32	4.28 / 33	4.15 / 35	4.08 / 25	4.19 / 56	extreme left skew
Total	4.32 / 65	4.45 / 53	4.34 / 61	4.14 / 31	4.38 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

On average, considerable variability exists, ranging between agree and strongly agree. Board Members are the group most likely to agree, with a slight bias towards strongly agreeing. However, Suppliers are more likely to agree to the statement and not deviate from this agreement. Collectors/Processors and Stakeholder Associations remain relatively neutral.

SARRC Stakeholder Associations, MARRC Board Members, AUOMA Collectors/Processors, and BCUOMA Board Members are most likely to indicate an agreement that is biased to strong agreement. However, BCUOMA Stakeholder Associations, MARRC Suppliers, BCUOMA Suppliers, SARRC Suppliers and AUOMA Stakeholder Associations, are more likely to indicate agreement and not bias towards strong agreement. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that group members are generally in consensus in their agreement.

Agreement is nearly identical across organizations (4.3), with the exception of MARRC members who indicate a lower agreement (4.19).

Overall, respondents indicate agreement with all used oil material collected being delivered to a government-approved reprocessor or recycler.

Statistical Findings Importance

On average, importance rates as important with a bias towards extreme. However, this is not the case for Suppliers, who are most likely to indicate a rating of somewhat important With a low bias for extreme importance. BCUOMA Collectors/Processors, AUOMA Collectors/Processors, and SARRC Stakeholder Associations are most likely to indicate importance that verges on extremely important. Whereas BCUOMA Stakeholder Associations, and MARRC Suppliers indicate that the statement is somewhat important with no significant bias. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that group members are generally in consensus in their importance rating.

An analysis of the provincial associations indicates variability in the results. The BCUOMA and SARRC have a similar importance rating (4.3), however AUOMA indicates the highest importance rating (4.45) whereas MARRC illustrates the lowest average importance rating (4.14).

Overall, respondents indicate that it is important that all used oil material collected be delivered to a government-approved reprocessor or recycler.

Comments

In general, comments indicate agreement with statement E.

- "Government approval is necessary because industry needs to be monitored and controlled on an ongoing basis."
- "Collecting and reprocessing wouldn't happen if there wasn't a watch dog."
- "That is the role of the government, to set ground rules."
- "Government is the one that sets standards for pollution control, so the government can say yes or no to poor recycling facilities."
- "Without approval there is not a way to ensure that used oil stays out of the waste stream."
- "If there is no licensing and control then recycling can become hazardous."
- "An industry monitored and approved used oil recycling program would only work if salvage value of materials was high enough."
- Used oil recycling wouldn't get done if it were left to profit-minded individuals."

Some stakeholders indicated disagreement.

- "AUOMA should be the association giving approval, not the government. The government doesn't have enough bodies to monitor this industry. Although Industry needs to operate under the government sanctions, it should be AUOMA who approves."
- "Industry should steward the proper disposal of used oil and related materials."
- "UOMA is funded by industry. They work hand in hand to run the program. They can run hand in hand to approve reprocessors and recyclers."

Statement F

Return incentive rates paid to reprocessors and recyclers should be the same and should not favour different technologies.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	2.00 / 1	2.60 / 6	2.50 / 4	/ 0	2.50 / 11	left skew
Board members	3.40 / 6	4.80 / 6	4.14 / 7	5.00 / 3	4.25 / 22	extreme left skew
Collectors/ Processors	3.85 / 14	3.56 / 20	3.62 / 15	3.33 / 3	3.79 / 31	extreme left skew
Suppliers	3.45 / 32	3.53 / 33	3.76 / 35	3.63 / 25	3.60 / 56	left skew
Total	3.52 / 65	3.57 / 53	3.69 / 61	3.73 / 31	3.66 / 120	
Distribution	left skew	uniform	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.40 / 6	4.00 / 4	/ 0	4.10 / 11	uniform
Board members	4.20 / 6	4.80 / 6	4.43 / 7	5.00 / 3	4.53 / 22	extreme left skew
Collectors/ Processors	4.70 / 14	4.50 / 20	4.45 / 15	4.67 / 3	4.48 / 31	extreme left skew
Suppliers	3.87 / 32	3.83 / 33	3.97 / 35	3.91 / 25	3.94 / 56	left skew
Total	4.07 / 65	4.16 / 53	4.13 / 61	4.07 / 31	4.19 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Statement F exhibits a high variability in agreement. Whereas Provincial associations disagree with the statement, Board Members agree, and Collectors/Processors and Suppliers indicate neutrality with a strong bias towards agreement.

There exists considerable variability in agreement for Board Members, of whom some show strong agreement (MARRC), whereas others show agreement with a bias toward strong agreement (AUOMA). Others exhibit agreement with little bias (SARRC), and neutrality with a low bias towards agreement (BCUOMA). Suppliers illustrate the lowest variability. BCUOMA, SARRC, and AUOMA Stakeholder Associations disagree with the statement. Whereas MARRC Board Members are most likely to agree with the statement. Most other members fall between agreement and neutrality with a strong bias for agreement. The variability within the groups is supported by the considerable standard deviation for this question. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at each rating level (1 to 5). The variability experienced by Stakeholder Associations is primarily due to their small sample size.

When comparing provincial associations, MARRC illustrates neutrality with the strongest bias for agreement (3.73), followed by SARRC (3.69). BCUOMA and AUOMA both exhibit neutrality with a moderate bias for agreement (3.5).

Overall, respondents neither agree nor disagree with return incentive rates paid to reprocessors and recyclers being the same and not favouring different technologies.

Statistical Findings Importance

Statement F exhibits a considerable variability of importance ratings. Whereas Board Members are most likely to rate the statement as somewhat important with a moderate bias towards extremely important, Collectors/Processors exhibit a low bias, and Stakeholder Associations exhibit no bias. Suppliers rate the statement's importance as neutral, with a strong bias towards somewhat important.

Within member groups there is considerable variability. There is little variability in the answers for Suppliers, who all rate the statement as neutral with a moderate to high bias towards somewhat important. However, a greater variability exists with Board Members. BCUOMA Board Members indicate the statement as somewhat important, however MARRC Board Members rate the statement as extremely important. Collectors/Processors tend to rate the statement as important with a low bias towards extremely important, with the exception of MARRC Collectors/Processors, whose bias is high. For Collectors/Processors, importance ratings show a high standard deviation. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at three rating levels (3 to 5) averaging to a somewhat important rating. Overall, none of the other groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

When comparing the importance across provincial associations, there is little variability, and most rate statement F as somewhat important.

Overall, respondents indicate that it is important that return incentive rates paid to reprocessors and recyclers be the same and not favour different technologies.

Comments

In general, Board Members are in agreement with the statement, and view this issue as important.

- "Incentives should be the same, we don't need to create a false economy of one business sector over another"
- "The fair market will determine what technologies become dominant"
- "[Favouring technologies] would limit the outlets for materials."
- "Big companies would take over if RI's were different."
- "RIs should be based on the best use of the product. Garage burners may not be the best use of the product."

Suppliers and Collectors/Processors are generally neutral in regards to the statement.

- "The end results need to be the same, you can't play favorites or participation will drop."
- "There should be no favourism, unless you go to energy recovery, then there should be a difference."
- "It is important to give incentive to new technology and yet we cannot discount old technology."

Disagreement with the statement made up the smallest proportion of the answers, however all disagreement came from Collectors/Processors.

- "Any technologies that are better for the overall health of the environment should be given a higher RI"
- "If there are different technologies that are better, they should be paid more."
- "It would be hard to have [return incentives] on the same pay scale when it costs different amounts to reprocess"

Statement G

UOMA's primary focus should be on the collection of used oil materials from the waste stream.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	3.60 / 6	4.00 / 4	/ 0	3.90 / 11	normal
Board members	4.60 / 6	5.00 / 6	4.29 / 7	5.00 / 3	4.65 / 22	extreme left skew
Collectors/ Processors	3.67 / 14	3.61 / 20	3.36 / 15	2.33 / 3	3.93 / 31	extreme left skew
Suppliers	4.34 / 32	4.27 / 33	4.23 / 35	4.24 / 25	4.25 / 56	extreme left skew
Total	4.22 / 65	4.08 / 53	4.02 / 61	4.13 / 31	4.21 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.20 / 6	3.75 / 4	/ 0	4.10 / 11	uniform
Board members	4.80 / 6	5.00 / 6	4.43 / 7	5.00 / 3	4.75 / 22	extreme left skew
Collectors/ Processors	4.40 / 14	4.35 / 20	4.46 / 15	4.00 / 3	4.46 / 31	extreme left skew
Suppliers	4.38 / 32	4.41 / 33	4.24 / 35	4.29 / 25	4.31 / 56	extreme left skew
Total	4.44 / 65	4.42 / 53	4.28 / 61	4.33 / 31	4.41 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Statement G has a relatively high variability in agreement. Whereas Board Members indicate an agreement with a strong bias to strong agreement, Suppliers illustrate a low bias, whereas Stakeholder Associations and Collectors/Processors are neutral with a strong bias to agreement.

Across the four provincial associations and their respective member groups, there is considerable variability. Whereas Suppliers show little variability, Member Association, Board Members, and Collectors/Processors illustrate a high variability. Answers range from strong agreement for MARRC Board Members and BCUOMA Stakeholder Associations, to disagreement for MARRC Collectors/Processors. Additional outliers include SARRC Board Members who rate agreement considerably lower then the Board Members of any other group, MARRC Collectors/Processors who rate agreement especially low, and BCUOMA Stakeholder Associations who rate agreement especially highly.

Collectors/Processors exhibit a high standard deviation due to a number of responses that are grouped in the lower range of agreement. For this analysis, the group of outliers has been determined to be statistically significant, and have been left in the analysis. For Stakeholder Associations, variability is due to a low sample size. None of the other groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There is little variability across the four provincial associations, with the respondents indicating agreement with the statement, and exhibiting

Statistical Findings Importance

In general Statement G is rates as somewhat important, with some variability in the size of bias towards extreme importance. Board Members have the strongest bias, followed by Collectors/Processors, Suppliers, and Member Association.

Within the breakdown there is some variability. Most of this variability is found with Stakeholder Associations that exhibit a relatively low sample size. Outside of the Member Association set, responses range from extremely important for AUOMA and MARRC Board Members, to somewhat important for MARRC Collectors/Processors. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There is little variability across the four provincial associations, with respondents indicating that statement G is somewhat important. The bias towards extremely important ranges from moderate (BCUOMA and AUOMA) to low (SARRC and MARRC).

Overall, respondents indicate that it is important that UOMA's primary focus is on the collection of used oil materials from the waste stream. However, respondents illustrate a moderate tendency to rate the statement as extremely important.

no bias or a low bias to strong agreement.

Overall, respondents agree that UOMA's primary focus should be on the collection of used oil materials from the waste stream.

Comments

Comments indicate that Boards agree with statement G. Although the numerical data shows overall agreement, the interviews demonstrate that there is some disagreement towards the statement from Collectors/Processors and Suppliers.

- "[UOMA] are the governing body and should be primarily focusing on making sure that Used Oil is being collected properly."
- "UOMA should focus on collection because the reprocessing needs to be competitive."
- "UOMA's primary focus should be on stewardship, and the infrastructure of the program, not just collection."
- "UOMA's primary focus should be on used oil being collected and not used as space heating."
- "UOMA needs to focus on collecting used oil before worrying about anything else."

Other issues that UOMA should focus on:

- "UOMA should focus on better regulating of the program."
- "UOMA should focus on the follow through and tracking of where the collected materials go."
- "UOMA should focus on ensuring that stakeholders are meeting environmental standards."
- "UOMA should focus on communication, education, and awareness."
- "UOMA should focus on including other materials in the program."
- "UOMA should focus on follow through on policy, [UOMA] needs to represent certain ethical principles."
- "UOMA should focus on rural and low diversion areas."

Statement H

I understand that my participation in UOMA activities helps the organizations achieve used oil material recovery in Western Canada.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	2.00 / 1	3.00 / 6	4.00 / 4	/ 0	3.33 / 11	left skew
Board members	4.17 / 6	4.40 / 6	4.50 / 7	4.33 / 3	4.35 / 22	extreme left skew
Collectors/ Processors	4.08 / 14	3.79 / 20	3.60 / 15	3.67 / 3	4.00 / 31	extreme left skew
Suppliers	3.81 / 32	3.94 / 33	4.00 / 35	4.13 / 25	3.95 / 56	extreme left skew
Total	3.88 / 65	3.87 / 53	3.95 / 61	4.10 / 31	3.98 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.50 / 6	4.00 / 4	/ 0	4.11 / 11	left skew
Board members	4.33 / 6	4.40 / 6	4.71 / 7	4.33 / 3	4.48 / 22	extreme left skew
Collectors/ Processors	4.45 / 14	4.39 / 20	4.29 / 15	4.00 / 3	4.39 / 31	extreme left skew
Suppliers	4.19 / 32	4.25 / 33	4.18 / 35	4.21 / 25	4.19 / 56	extreme left skew
Total	4.24 / 65	4.32 / 53	4.25 / 61	4.20 / 31	4.29 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Statement H has relatively high agreement variability. Board Members indicate an agreement with a medium bias to strong agreement; Collectors/Processors illustrate no bias, Suppliers are neutral with a strong bias for agreement, and Stakeholder Associations are neutral with a low bias for agreement.

Across the four provincial associations and their respective member groups, there is considerable variation across groups. For Collectors/Processors, agreement with this statement shows a high standard deviation. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at rating levels 3 to 5, averaging to an agreement rating. The variability experienced by Stakeholder Associations is primarily due to their small sample size. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There is little variability between BCUOMA, AUOMA, and SARRC. Each association is neutral with a strong bias to agree. MARRC illustrates agreement with no bias towards strong agreement.

Overall, respondents understand that their participation in UOMA activities helps the organizations achieve used oil material recovery in Western Canada.

Statistical Findings Importance

In general Statement H rates as somewhat important, with some variability in the size of the bias towards extreme importance. Board Members have the strongest bias, followed by Collectors/Processors, Suppliers, and Member Association. However, this bias remains between moderate and low.

Within the breakdown there is some variability. Most of this variability is found with Stakeholder Associations. A regression analysis illustrates a high correlation (25% R Square) between the association (SARRC, AUOMA, BCUOMA) that the Member association belongs to and the score they chose, suggesting that the figures are representative. Outside of the Member Association set, responses range from somewhat important with a low bias for AUOMA and SARRC Suppliers, to somewhat important with a high bias towards extremely important for SARRC Board Members. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There is little variability across the four provincial associations, with respondents indicating that statement H is somewhat important. The bias towards extremely important is low for all four provincial associations.

Overall, respondents indicate that it is important that they understand that their participation in UOMA activities helps the organizations achieve used oil material recovery in Western Canada.

Comments

Minimal comments were received for this statement.

- "Legislation has forced used oil recycling, but now the oil can be collected and UOMA can get people to use it."

Statement I

UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.67 / 6	3.25 / 4	/ 0	4.18 / 11	left skew
Board members	4.67 / 6	4.60 / 6	4.57 / 7	4.67 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	4.00 / 14	3.85 / 20	3.67 / 15	3.00 / 3	4.03 / 31	extreme left skew
Suppliers	4.16 / 32	4.39 / 33	4.29 / 35	4.36 / 25	4.20 / 56	extreme left skew
Total	4.19 / 65	4.27 / 53	4.10 / 61	4.26 / 31	4.23 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.67 / 6	4.75 / 4	/ 0	4.73 / 11	extreme left skew
Board members	4.67 / 6	4.60 / 6	4.86 / 7	4.67 / 3	4.71 / 22	extreme left skew
Collectors/ Processors	4.17 / 14	4.05 / 20	4.07 / 15	4.00 / 3	4.21 / 31	extreme left skew
Suppliers	4.31 / 32	4.41 / 33	4.26 / 35	4.33 / 25	4.26 / 56	extreme left skew
Total	4.33 / 65	4.34 / 53	4.32 / 61	4.33 / 31	4.37 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Respondents are in agreement with statement I. On average, Board Members indicate agreement with a high bias for strong agreement, Suppliers and Stakeholder Associations indicate agreement with a low bias for strong agreement, and Collectors/Processors indicate agreement with no significant bias towards strong agreement.

Across the four provincial associations and their respective member groups, there is considerable variability. Scores range from neutrality, MARRC Collectors/Processors, to strong agreement, BCUOMA Stakeholder Associations. The SARRC Stakeholder Associations and the MARRC Collectors/Processors show exceptionally low values in comparison to the rest of their groups. The variability within these groups is supported by the considerable standard deviation exhibited by them. The standard deviation is due to a number of responses that are grouped in the lower range of agreement. For the purpose of this analysis, this group of outliers has been determined to be representative of the population, and have been left in the analysis.

There is little variability between the four provincial associations, with the average answer remaining agreement, with a low bias towards strong agreement.

Overall, respondents agree that UOMA should make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

Statistical Findings Importance

On average, the importance of Statement I is high. This statement ranges in the somewhat important category with a strong bias for extreme importance. Stakeholder Associations and Board Members are most likely to have a strong bias towards extreme importance. Collectors/Processors and Suppliers indicate statement I as somewhat important with a low bias towards extreme importance.

Across the four provincial associations and their respective member groups, there is little variability. Scores range from somewhat important (MARRC Collectors/Processors, AUOMA Collectors/Processors, and SARRC Collectors/Processors) to extremely important (BCUOMA Stakeholder Associations, SARRC Board Members, and SARRC Stakeholder Associations). Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There is no variability across the four provincial associations. They all indicate that statement I is somewhat important with a low bias towards extremely important.

Overall, respondents indicate that it is important that UOMA make public education and information a priority to continue to improve the rate of used oil material recovery in Western Canada.

Comments

For statement I, most stakeholders indicate agreement.

- "BC is relatively small and doesn't have the resources to deliver public education. It is the government who should educate the public."
- This is still a new program for BC, and the education and awareness is not there: "I would love to help, but I have no idea who you are. I have never heard of the UOMA, I don't know what you do."
- "Rates have gone up because of public awareness, compliance will also increase with awareness."
- "There still is a lot of used oil being wasted so UOMA needs to focus on raising awareness."
- "People need to understand that there is something that they can do, that there is a benefit to recycling."
- "Without awareness of the danger of not recycling, people will continue to dispose of oil in inappropriate ways."
- "We need to communicate the importance of recycling."

However, some comments lean towards disagreement.

- "Free enterprise will drive the program further than public education."

Collectors/Processors made a number of suggestions regarding education:

- "Raising public awareness should start in the schools and educate the kids."
- "Public awareness can be raised through marketing. Make huge signs on how to avoid contamination."
- "If you want to educate the public, change the way in which you educate them. Handing out flyers and advertising is not effective."

Statement J

UOMA should ensure the administration of programs is performed in a cost effective manner.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.83 / 6	4.00 / 4	/ 0	4.45 / 11	left skew
Board members	4.83 / 6	4.80 / 6	4.57 / 7	4.67 / 3	4.71 / 22	extreme left skew
Collectors/ Processors	4.79 / 14	4.70 / 20	4.73 / 15	4.67 / 3	4.77 / 31	extreme left skew
Suppliers	4.78 / 32	4.76 / 33	4.74 / 35	4.80 / 25	4.68 / 56	extreme left skew
Total	4.77 / 65	4.75 / 53	4.67 / 61	4.77 / 31	4.69 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.67 / 6	4.75 / 4	/ 0	4.64 / 11	uniform
Board members	4.83 / 6	5.00 / 6	4.71 / 7	4.67 / 3	4.81 / 22	extreme left skew
Collectors/ Processors	4.83 / 14	4.84 / 20	4.86 / 15	4.67 / 3	4.86 / 31	extreme left skew
Suppliers	4.78 / 32	4.72 / 33	4.74 / 35	4.75 / 25	4.67 / 56	extreme left skew
Total	4.78 / 65	4.77 / 53	4.76 / 61	4.73 / 31	4.74 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

On average, respondents indicate agreement with statement J, with a medium to strong bias for strong agreement. There is little variability between member groups, with Collectors/Processors and Board Members indicating the highest bias for strong agreement, followed by Suppliers and then Stakeholder Associations.

Across the four provincial associations and their respective member groups, there is low variability. Overall, scores range from agreement with a strong bias towards strong agreement-AUOMA Board Members, MARRC Suppliers, BCUOMA Collectors/Processors and BCUOMA Suppliers-to agreement with a no bias for strong agreement-BCUOMA Stakeholder Associations and SARRC Stakeholder Associations. However, the greatest proportion of respondents agree with a strong bias for strong agreement. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members. An exception to this is the exceptionally high score seen by AUOMA Stakeholder Associations.

There is little variability between the four provincial associations, with the average answer remaining agreement, with a medium (SARRC) to strong (AUOMA, BCUOA, MARRC) bias towards strong agreement.

Overall, respondents agree that UOMA should ensure the administration of programs is performed in a cost effective manner.

Statistical Findings Importance

On average, the Statement J is somewhat important with a medium to strong bias for extreme importance. Collectors/Processors and Board Members are most likely to exhibit a strong bias for extreme importance, whereas Stakeholder Associations and Suppliers exhibit a medium bias.

Across the four provincial associations and their respective member groups, answers display minimal variability, with the exception of the BCUOMA Stakeholder Associations (4.0). Scores range from somewhat important with a moderate bias for extremely important to a strong bias for extremely important. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There is no variability across the four provincial associations. They all indicate that statement I is somewhat important with a strong bias towards extremely important.

Overall, respondents indicate that it is important that UOMA ensures the administration of programs is performed in a cost effective manner.

Comments

There exists consensus with regards to UOMA running a cost-effective program.

- "A bloated organization is not a credit to the program it runs."
- "If UOMA can't be run cost-effectively then it shouldn't be run."
- "Industry cannot afford to not be cost effective, or else rates will have to be increased at the end-user level."
- "Whatever the laws of the land, [UOMA] should look for the lowest cost solutions."
- "Even a bureaucracy needs to run cost effectively."

Although indicating agreement with the program running efficiently, Collectors/Processors and Board Members believe that it should do so no matter the cost.

- "Our generation has been very abusive with throwing stuff away, this has to stop no matter what."
- "The impact of not recycling is what is expensive."

Statement K

A high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.50 / 6	3.00 / 4	/ 0	3.27 / 11	left skew
Board members	4.33 / 6	4.00 / 6	4.14 / 7	3.67 / 3	4.10 / 22	uniform
Collectors/ Processors	4.79 / 14	4.50 / 20	4.33 / 15	4.00 / 3	4.48 / 31	extreme left skew
Suppliers	4.28 / 32	4.20 / 33	4.19 / 35	4.36 / 25	4.25 / 56	extreme left skew
Total	4.40 / 65	4.21 / 53	4.14 / 61	4.25 / 31	4.19 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.67 / 6	3.75 / 4	/ 0	3.64 / 11	normal
Board members	4.17 / 6	4.20 / 6	4.14 / 7	4.00 / 3	4.14 / 22	uniform
Collectors/ Processors	4.75 / 14	4.74 / 20	4.50 / 15	3.33 / 3	4.62 / 31	extreme left skew
Suppliers	4.31 / 32	4.21 / 33	4.37 / 35	4.38 / 25	4.34 / 56	extreme left skew
Total	4.38 / 65	4.32 / 53	4.33 / 61	4.22 / 31	4.31 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

For statement K, considerable variation in agreement exists. Stakeholder Associations indicate neutrality with the statement and exhibit a low level of bias towards agreement. Board Members and Suppliers illustrate agreement with a low level of bias towards strong agreement, and Collectors/Processors illustrate agreement with a moderate bias towards strong agreement.

Within the four provincial associations and their respective member groups, there is high variability. Stakeholder Associations show high variability, with AUOMA Stakeholder Associations rating agreement considerably higher than BCUOMA Stakeholder Associations (3.0), and SARRC Stakeholder Associations (3.0). However, The variability experienced by Stakeholder Associations is primarily due to their small sample size. For Board Members, MARRC Board Members scored significantly lower than others. Collectors/Processors also saw considerable variability, ranging from agreement with no bias (MARRC) to agreement with a high bias to strong agreement (BCUOMA). Suppliers illustrate minimal variation. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. Although all are in agreement regarding statement K, BCUOMA illustrates a moderate bias towards strong agreement, MARRC, AUOMA and SARRC illustrate a low bias towards strong agreement.

Overall, respondents are in agreement that a high percentage of the Environmental Handling Charges (EHC) should flow through to Collectors as Return Incentives (RI).

Statistical Findings Importance

Statement K exhibits considerable variation in importance rating. Stakeholder Associations indicate neutrality with the statement and exhibit a moderate level of bias towards somewhat important. Board Members and Suppliers indicate that the statement is somewhat important with a low level of bias towards extreme importance, and Collectors/Processors believe the statement to be somewhat important with a moderate bias for extreme importance.

Within the four provincial associations and their respective member groups, there is little variability. BCUOMA Stakeholder Associations (3.0), considerably lower ratings than other UOMA Provincial associations. MARRC Collectors/Processors rate importance lower than other member groups. However, standard deviation is not greatly impacted due to the low sample sizes of these two groups.

There exists little variability between the four provincial associations. All provincial associations indicate that the statement is important and illustrate a low bias towards rating it as extremely important.

Overall, respondents indicate that it is important for a high percentage of the Environmental Handling Charges (EHC) to flow through to Collectors as Return Incentives (RI).

Comments

Comments indicate that a high percentage of the EHC and RI should flow though to collectors. However, Suppliers indicate some disagreement.

- "The money should be evenly distributed between the collector and the processors."
- "Collectors are the ones making the program work. They spend the 15-18 hour days in their trucks collecting used oil materials. Their expenses have gone up (Fuel, meals, hotels) and the program should compensate for that."
- "The program relies on the collectors. Without collectors, no one will drive the market and there will be no incentive to get used oil out of the system."
- "Two major leaks in the program: ECO Centers and furnaces. Profit is taken away from collectors by those items."
- "If money is being donated to a good cause (the collection of used oil), the money should go to that cause!"
- "It is non-profit so take whatever money it takes to pay for the collection especially in the more remote areas."

Statement L

The used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.00 / 6	3.75 / 4	/ 0	3.82 / 11	extreme left skew
Board members	4.50 / 6	4.80 / 6	4.71 / 7	5.00 / 3	4.71 / 22	extreme left skew
Collectors/ Processors	4.00 / 14	4.05 / 20	4.07 / 15	3.67 / 3	4.03 / 31	extreme left skew
Suppliers	4.84 / 32	4.76 / 33	4.77 / 35	4.88 / 25	4.70 / 56	extreme left skew
Total	4.56 / 65	4.48 / 53	4.52 / 61	4.77 / 31	4.45 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.00 / 6	3.25 / 4	/ 0	3.73 / 11	uniform
Board members	4.50 / 6	4.80 / 6	4.57 / 7	5.00 / 3	4.67 / 22	extreme left skew
Collectors/ Processors	4.18 / 14	4.33 / 20	4.50 / 15	4.00 / 3	4.21 / 31	extreme left skew
Suppliers	4.84 / 32	4.78 / 33	4.88 / 35	4.88 / 25	4.76 / 56	extreme left skew
Total	4.64 / 65	4.57 / 53	4.64 / 61	4.80 / 31	4.51 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

On average, respondents are in agreement with statement L, and exhibit a moderate bias towards extreme agreement. However, considerable variation in agreement exists. Stakeholder Associations indicate neutrality with the statement and exhibit a high level of bias towards agreement. Board Members and Suppliers illustrate agreement with a high level of bias towards strong agreement, and Collectors/Processors illustrate agreement with a low bias towards strong agreement.

Within the four provincial associations and their respective member groups, there is little variability. BCUOMA Stakeholder Associations (3.0), and MARRC Collectors/Processors (3.67) score the lowest in agreement. MARRC Board Members (5.0), MARRC Suppliers (4.88), BCUOMA Suppliers (4.84), and AUOMA Board Members (4.80) scored the highest. Stakeholder Associations are relatively variable, however they exhibit a low standard deviation, suggesting that the differences are not significant. MARRC Collectors/Processors illustrate significantly lower agreement (3.67) than do other Collectors/Processors. This variance is indicative of the moderately high standard deviation exhibited by this group. Suppliers and Board Members illustrate minimal variance in agreement.

There exists some variability between the four provincial associations. Although all provincial associations are in agreement regarding statement L, BCUOMA (4.56), AUOMA (4.48) and SARRC (4.53) illustrate a moderate bias towards strong agreement, whereas MARRC illustrates a strong bias towards strong agreement (4.77).

Statistical Findings Importance

Statement L exhibits considerable variation in importance rating. Stakeholder Associations indicate neutrality with the statement and exhibit a high level of bias towards somewhat important. Board Members and Suppliers indicate that the statement is somewhat important with a strong level of bias towards extreme importance, and Collectors/Processors believe the statement to be somewhat important with a low bias for extreme importance.

Within the four provincial associations and their respective member groups, there is moderate variability. SARRC Stakeholder Associations (3.25) represent considerably lower scores than other Stakeholder Associations. This variability is statistically significant and results in a moderately high standard deviation. Although Board Members and Collectors/Processors appear to exhibit considerable variability, this variation is not statistically significant.

There exists some variability between the four provincial associations. All provincial associations indicate that the statement is important. However, MARRC exhibits a strong bias towards rating statement L as extremely important (4.80), whereas BCUOMA (4.64), SARRC (4.64) and AUOMA (4.57) indicate a moderate bias.

Overall, respondents indicate that it is important that the used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

Overall, respondents are in agreement that the used oil management programs in British Columbia, Alberta, Saskatchewan and Manitoba and future provincial initiatives should work towards having programs that are consistent with each other.

Comments

Comments indicate that respondents agree with the statement.

- "A lot of companies work across provinces. One set of rules is better than four."
- "Consistent programs will lower administration costs and help create a more efficient program."
- "Consistency and integration across provinces will result in shared costs and shared ideas."

However, some Collectors/Processors disagree with this statement, an observation that is not reflected in the statistical findings.

- "Consistency cannot be realistically achieved because every province has a different tax system, fuel price. The economy is different for everyone."
- "Every province needs to have their own program criteria, because each province has unique issues."

Statement M

UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

Agreement

Associations	5.00 / 1	4.83 / 6	4.50 / 4	/ 0	4.73 / 11	left skew
Board members	5.00 / 6	4.40 / 6	4.71 / 7	5.00 / 3	4.76 / 22	extreme left skew
Collectors/ Processors	4.86 / 14	4.55 / 20	4.67 / 15	4.33 / 3	4.68 / 31	extreme left skew
Suppliers	4.41 / 32	4.36 / 33	4.40 / 35	4.44 / 25	4.36 / 56	extreme left skew
Total	4.60 / 65	4.47 / 53	4.51 / 61	4.48 / 31	4.55 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.83 / 6	4.50 / 4	/ 0	4.73 / 11	extreme left skew
Board members	4.83 / 6	4.60 / 6	4.71 / 7	5.00 / 3	4.76 / 22	extreme left skew
Collectors/ Processors	4.83 / 14	4.68 / 20	4.79 / 15	4.33 / 3	4.79 / 31	extreme left skew
Suppliers	4.53 / 32	4.47 / 33	4.52 / 35	4.50 / 25	4.45 / 56	extreme left skew
Total	4.65 / 65	4.58 / 53	4.60 / 61	4.53 / 31	4.62 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

On average, respondents are in agreement with statement M, and exhibit a moderate bias towards extreme agreement. Across member groups, minimal variation exists. Stakeholder Associations, Board Members, and Collectors/Processors all agree with statement M, and have a strong bias towards strong agreement. Suppliers illustrate a moderate bias towards strong agreement.

Within the four provincial associations and their respective member groups, there is low variability. MARRC Collectors/Processors (4.33), and AUOMA Suppliers (4.36) score the lowest in agreement. BCUOMA Stakeholder Associations (5.0), MARRC Board Members (5.0), MARRC Board Members, and BCUOMA Collectors/Processors (4.86) score the highest. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists no variability between the four provincial associations. All provincial associations are in agreement regarding the statement, and exhibit a moderate bias towards strong agreement.

Overall, respondents agree that UOMA should continue to work with their partners toward increasing the used oil material recovery rate.

Statistical Findings Importance

Statement M is generally rated as somewhat important, with a high bias towards extremely important. The supplier group is the only group outlying, rating the importance of statement M as somewhat important with a moderate bias towards extremely important.

Within the four provincial associations and their respective member groups, there is low variability. MARRC Collectors/Processors (4.33), AUOMA Suppliers (4.47), MARRC Suppliers (4.5), and SARRC Stakeholder Associations (4.5) rated the importance lowest. MARRC Board Members (5.0), BCUOMA Stakeholder Associations (5.0), AUOMA Stakeholder Associations (4.83), BCUOMA Board Members (4.83), and BCUOMA Board Members (4.83) score the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists no variability between the four provincial associations. All provincial associations indicate that the statement is somewhat important, and exhibit a moderate bias towards extreme importance.

Overall, respondents indicate that it is important that UOMA continue to work with their partners toward increasing the used oil material recovery rate.

Comments

Overall agreement and importance are high for statement M. However, supplier comments show that while it is important to continue to increase the recovery rate, UOMA must remain cost effective.

- "Make every drop count!"
- "We have to strive to maximize the recovery as much as possible."
- "The combination of the two (UOMA and the partners), make it successful."
- "UOMA serves everyone's best interests."

Some respondents indicated that they had no clear definition as to who "partners" referred to.

Statement N

Questions I have asked of UOMA administrative staff were addressed in a satisfactory manner.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.60 / 6	4.50 / 4	/ 0	4.50 / 11	left skew
Board members	4.50 / 6	4.80 / 6	4.43 / 7	4.00 / 3	4.48 / 22	left skew
Collectors/ Processors	3.58 / 14	3.68 / 20	3.62 / 15	4.00 / 3	3.75 / 31	extreme left skew
Suppliers	3.78 / 32	3.85 / 33	4.00 / 35	3.76 / 25	3.70 / 56	extreme left skew
Total	3.83 / 65	3.95 / 53	4.00 / 61	3.81 / 31	3.94 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.40 / 6	3.75 / 4	/ 0	4.10 / 11	extreme left skew
Board members	4.17 / 6	4.40 / 6	4.14 / 7	4.33 / 3	4.24 / 22	extreme left skew
Collectors/ Processors	4.10 / 14	4.39 / 20	4.08 / 15	3.67 / 3	4.23 / 31	extreme left skew
Suppliers	4.04 / 32	4.15 / 33	4.14 / 35	4.16 / 25	4.07 / 56	left skew
Total	4.07 / 65	4.27 / 53	4.10 / 61	4.12 / 31	4.15 / 120	
Distribution	extreme left skew	left skew	left skew	extreme left skew		

Statistical Findings Agreement

On average, respondents are in agreement with statement N, and exhibit no bias towards strong agreement. Across member groups, considerable variation exists. Stakeholder Associations, and Board Members agree with statement N, and have a strong bias towards strong agreement. Collectors/Processors are in agreement with no significant bias for strong agreement. Suppliers are neutral and exhibit a moderate bias towards agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Collectors/Processors, although appearing relatively consistent, are quite variable in their answers. The variability answers to a neutral rating. The outliers have been removed, as they were determined to be not representative of the population. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations are, on average, neutral with a strong bias towards agreement.

Overall, respondents agree that questions they have asked of UOMA administrative staff were addressed in a satisfactory manner.

Statistical Findings Importance

Statement N is generally rated as somewhat important, with a low bias towards extremely important. Stakeholder Associations and Suppliers exhibit little if any bias towards extreme importance, whereas Board Members and Collectors/Processors exhibit a low bias towards extreme importance.

Within the four provincial associations and their respective member groups, there is little variability. MARRC Collectors/Processors (3.67) and SARRC Stakeholder Associations rate importance as lowest. AUOMA Stakeholder Associations (4.40), AUOMA Board Members (4.40), AUOMA Collectors/Processors (4.39) score the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations indicate the statement as somewhat important, and exhibit a no bias towards extreme importance. The exception is AUOMA, which exhibits a low bias towards extreme importance.

Overall, respondents indicate that it is important that questions they ask of UOMA administrative staff be addressed in a satisfactory manner.

Comments

In general, no negative comments were received in regards to this statement.
“Edmonton administrative staff has been very supportive”

Statement O

On the whole, my experience with UOMA administrative staff has been positive.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.50 / 6	4.50 / 4	/ 0	4.45 / 11	left skew
Board members	4.67 / 6	4.80 / 6	4.57 / 7	4.33 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	3.73 / 14	3.63 / 20	3.69 / 15	4.00 / 3	3.82 / 31	extreme left skew
Suppliers	4.00 / 32	4.00 / 33	4.10 / 35	4.00 / 25	3.92 / 56	left skew
Total	4.02 / 65	4.00 / 53	4.09 / 61	4.04 / 31	4.08 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.50 / 6	3.75 / 4	/ 0	4.09 / 11	extreme left skew
Board members	4.17 / 6	4.60 / 6	4.43 / 7	3.67 / 3	4.29 / 22	extreme left skew
Collectors/ Processors	4.20 / 14	4.32 / 20	4.25 / 15	4.33 / 3	4.22 / 31	extreme left skew
Suppliers	4.00 / 32	4.04 / 33	4.04 / 35	3.95 / 25	3.96 / 56	left skew
Total	4.04 / 65	4.23 / 53	4.12 / 61	3.96 / 31	4.11 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Agreement with statement O is highly variable. While Stakeholder Associations and Board Members agree with statement O, and have a strong bias towards strong agreement, Collectors/Processors and Suppliers are neutral and exhibit a moderate bias towards agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. AUOMA Collectors/Processors (3.69), SARRC Collectors/Processors (3.69) and BCUOMA Collectors/Processors (3.73) scored the lowest in agreement. The standard deviation is due to a number of responses that are grouped in the lower range of agreement. For the purpose of this analysis, this group of outliers has been determined to be representative of the population, and have been left in the analysis. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members

There exists little variability between the four provincial associations. All provincial associations are, on average, in agreement with a strong bias towards strong agreement.

Overall, respondents agree that on the whole, their experience with UOMA administrative staff has been positive.

Statistical Findings Importance

Statement O generally rates as somewhat important, with a no bias or a low bias for choosing extremely important. Stakeholder Associations and Suppliers exhibit no significant bias towards extreme importance, whereas Board Members and Collectors/Processors exhibit a low bias towards extreme importance.

Within the four provincial associations and their respective member groups, there is little variability. MARRC Board Members (3.67), SARRC Stakeholder Associations (3.75) and MARRC Suppliers (3.95) indicated the lowest importance rating. AUOMA Board Members (4.60), AUOMA Stakeholder Associations (4.50), and SARRC Board Members (4.43) scored the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists considerable variability between the four provincial associations. All provincial associations indicate the statement as somewhat important, however BCUOMA and MARRC exhibit no bias, whereas AUOMA and SARRC exhibit a low bias for strong agreement.

Overall, respondents indicate that it is important that their experience with UOMA administrative staff is positive.

Comments

Stakeholder contacted administrative staff when they experienced difficulties with procedures, compliance, filter inclusions, future plans, and auditing processes. On the whole, experience with administrative staff was rated high.

- "In BC, there was definitely a learning curve for both UOMA staff and the participants."
- "UOMA administrative staff are polite but they can't really do anything because they have no authority."
- "Executive Directors have been very receptive."
- "Communication has been lost between Collectors/Processors and program administrators."
- "My experience with the program staff has been extremely positive and professional."

Statement P

UOMA appears to be fair and consistent in its administration of the used oil management program.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.00 / 6	4.00 / 4	/ 0	4.00 / 11	extreme left skew
Board members	4.67 / 6	4.80 / 6	4.57 / 7	4.33 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	3.46 / 14	3.25 / 20	3.21 / 15	3.33 / 3	3.53 / 31	extreme left skew
Suppliers	3.93 / 32	4.07 / 33	3.94 / 35	3.87 / 25	3.84 / 56	left skew
Total	3.90 / 65	3.85 / 53	3.84 / 61	3.86 / 31	3.92 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.60 / 6	4.50 / 4	/ 0	4.50 / 11	left skew
Board members	4.67 / 6	4.80 / 6	4.71 / 7	4.33 / 3	4.67 / 22	extreme left skew
Collectors/ Processors	4.55 / 14	4.74 / 20	4.69 / 15	4.67 / 3	4.61 / 31	extreme left skew
Suppliers	4.34 / 32	4.50 / 33	4.33 / 35	4.33 / 25	4.23 / 56	extreme left skew
Total	4.43 / 65	4.61 / 53	4.48 / 61	4.37 / 31	4.44 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement P is highly variable. Stakeholder Associations and Suppliers are neutral with a strong bias for agreement. Collectors/Processors are neutral and exhibit a moderate bias towards agreement. Board Members agree with statement P and have a moderate bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Agreement was strongest with AUOMA Board Members (4.80), BCUOMA Board Members (4.67), and SARRC Board Members (4.57). SARRC Collectors/Processors (3.21), AUOMA Collectors/Processors (3.25) and MARRC Collectors/Processors (3.33) rate agreement lowest. Collectors/Processors illustrate the highest standard deviation, however the number of extreme responses (high and low) are representative and have been left in the analysis. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations are neutral with a strong bias towards agreement. Average scores were: BCUOMA, MARRC, AUOMA and SARRC.

Overall, respondents agree that UOMA appears to be fair and consistent in its administration of the used oil management program.

Statistical Findings Importance

Statement P is generally rated as somewhat important, with a low to moderate bias for choosing extremely important. Suppliers indicate that the statement is somewhat important, with a low bias towards extremely important. Stakeholder Associations, Board Members, and Collectors/Processors exhibited a moderate bias towards choosing extremely important

Within the four provincial associations and their respective member groups, there exists some variability. MARRC Board Members (4.33), MARRC Suppliers (4.33), SARRC Suppliers (4.33) and BCUOMA Suppliers (4.34) indicated the lowest importance rating. AUOMA Board Members (4.80), AUOMA Collectors/Processors (4.74), and SARRC Board Members (4.71) scored the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations indicate the statement as somewhat important with a medium bias for choosing extreme importance. Average scores were: AUOMA (4.61), SARRC (4.48), BCUOMA (4.43), and MARRC (4.37)

Overall, respondents indicate that it is important that UOMA be fair and consistent in its administration of the used oil management program.

Comments

Comments show a bias toward the consistency and fair administration of the program. There is little disagreement.

- "Consistency is important, as any inconsistency would damage the effectiveness of the program."
- "Consistency is the only way that the program can maintain credibility."
- "A level playing field between Collectors/Processors, Suppliers, and Board Members is very important."
- "You will never get 100% consistency, but UOMA is doing the best they can."
- "There remain under-handed companies being allowed to operate."
- "AUOMA is not an association, but a dictatorship. Administration has total disregard and no respect for Collectors/Processors. An independent body needs to be put in place, which collectors can complain to, about corruption and incompetence in administration procedures and policy. Administration management needs to be held accountable for any problems or shortcoming of AUOMA."

Statement Q

A board that incorporates stakeholders' interests directs UOMA's operations.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	3.50 / 6	4.25 / 4	/ 0	3.82 / 11	left skew
Board members	4.50 / 6	4.80 / 6	4.43 / 7	4.67 / 3	4.57 / 22	extreme left skew
Collectors/ Processors	4.67 / 14	4.38 / 20	4.09 / 15	4.50 / 3	4.38 / 31	extreme left skew
Suppliers	4.19 / 32	4.21 / 33	4.10 / 35	4.19 / 25	4.02 / 56	extreme left skew
Total	4.33 / 65	4.24 / 53	4.15 / 61	4.27 / 31	4.19 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.83 / 6	4.75 / 4	/ 0	4.73 / 11	left skew
Board members	4.50 / 6	4.60 / 6	4.57 / 7	5.00 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	4.88 / 14	4.81 / 20	4.45 / 15	4.67 / 3	4.65 / 31	extreme left skew
Suppliers	4.44 / 32	4.44 / 33	4.39 / 35	4.40 / 25	4.28 / 56	extreme left skew
Total	4.52 / 65	4.61 / 53	4.46 / 61	4.50 / 31	4.48 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement Q is highly variable. Stakeholder Associations are neutral with a strong bias for agreement. Suppliers indicate agreement with no bias for strong agreement. Board Members and Collectors/Processors agree with a medium bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. This is especially true for Collectors/Processors who exhibit a large standard deviation. Subsequently three non-representative outliers were removed. Overall, none of the other groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations agree with a no bias or a low bias towards strong agreement. BCUOMA (4.22), MARRC (4.19) and AUOMA (4.14) show a low bias, whereas SARRC shows a statistically insignificant bias (4.06).

Overall, respondents agree that a board that incorporates stakeholders' interests directs UOMA's operations.

Statistical Findings Importance

Statement Q is generally rated as somewhat important, with a low to high bias for choosing extremely important. Stakeholder Associations and Board Members indicate that the statement is somewhat important and are strongly biased to extremely important. Collectors/Processors illustrate a moderate bias to choosing extremely important. Suppliers rate the statement as somewhat important and exhibit a low bias for choosing extremely important.

Within the four provincial associations and their respective member groups, there exists some variability. BCUOMA Stakeholder Associations (4.0), represent the lowest score, however, due to their small sample size this is not statistically significant.

There exists little variability between the four provincial associations. All provincial associations indicate the statement as somewhat important with a medium bias for choosing extreme importance. Average scores were: AUOMA (4.55), MARRC (4.50), BCUOMA (4.47), and SARRC (4.39).

Overall, respondents indicate that it is important that a board that incorporates stakeholders' interests directs UOMA's operations.

Comments

While importance is high for statement Q, there is disagreement with Collectors/Processors in regards to their view of how well UOMA represents their interests.

- "You need a board that takes care of everyone's interests."
- "The UOMA board looks out for interest of the oil companies but not the processors and collectors."
- "Collectors/Processors are under represented in the board, this is a sore point."
- "The UOMA board calls the shots, right now the program integrity is not being protected. People who are sanctioned by the program are facilitating theft."
- "How can the board be representative if Board Members have no hands-on experience?"
- "The UOMA board needs a neutral non-involved decision making process."
- "[The board] should not be involved in daily activity."

Statement R

It is clear how I can communicate my concerns with UOMA.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.40 / 6	4.00 / 4	/ 0	4.10 / 11	extreme left skew
Board members	4.50 / 6	4.40 / 6	4.29 / 7	4.00 / 3	4.33 / 22	extreme left skew
Collectors/ Processors	4.00 / 14	4.06 / 20	3.92 / 15	3.67 / 3	4.00 / 31	extreme left skew
Suppliers	3.96 / 32	4.04 / 33	3.93 / 35	3.95 / 25	3.94 / 56	left skew
Total	4.02 / 65	4.11 / 53	3.98 / 61	3.93 / 31	4.05 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.50 / 6	4.25 / 4	/ 0	4.36 / 11	uniform
Board members	4.67 / 6	4.40 / 6	4.57 / 7	5.00 / 3	4.62 / 22	extreme left skew
Collectors/ Processors	4.50 / 14	4.37 / 20	4.33 / 15	4.33 / 3	4.37 / 31	extreme left skew
Suppliers	4.37 / 32	4.28 / 33	4.16 / 35	4.26 / 25	4.20 / 56	left skew
Total	4.43 / 65	4.34 / 53	4.25 / 61	4.34 / 31	4.34 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Agreement with statement R is somewhat variable. Member Association, Collectors/Processors, and Suppliers are neutral with a strong bias for agreement. Board Members agree with a low bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. This is especially true of Collectors/Processors and Suppliers who exhibited a large standard deviation. The outliers causing the deviation were determined to be non-representative and were subsequently removed from the analysis. The removal of the outliers was did not change the significantly change the averages. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations are neutral with strong bias towards agreement. The averages are: BCUOMA (3.86), AUOMA (3.84), SARRC (3.81), MARRC (3.80).

Overall respondents agree that it is clear how they can communicate their concerns with UOMA.

Statistical Findings Importance

Statement R is minimally variable. Board Members indicate that the statement is somewhat important and are strongly biased to choose extremely important. Stakeholder Associations and Collectors/Processors illustrate a moderate bias for choosing extremely important. Suppliers rate the statement as somewhat important and exhibit a low bias for choosing extremely important.

Within the four provincial associations and their respective member groups, there exists little variability. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. All provincial associations indicate the statement as somewhat important, however, BCUOMA members were moderately biased towards extreme importance (4.43), whereas AUOMA (4.34), SARRC (4.25), and MARRC (4.34) members had a low bias towards agreement.

Overall respondents indicate that it is important that they can communicate their concerns with UOMA.

Comments

Although there exists moderate agreement with statement R, those who commented disagreed with the statement.

- "The concerns of Collectors/Processors don't become proprieties on UOMA's agenda."
- "For new Board Members it would be nice to have a blueprint on where and who to take your grievances to."
- "The program itself is very clear and simple."
- "Where is the administrative group? Assistance is needed with the roll out of Quebec."

Statement S

UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.20 / 6	3.50 / 4	/ 0	3.30 / 11	uniform
Board members	3.80 / 6	4.40 / 6	4.43 / 7	4.67 / 3	4.30 / 22	uniform
Collectors/ Processors	3.08 / 14	3.50 / 20	3.36 / 15	3.00 / 3	3.43 / 31	extreme left skew
Suppliers	3.83 / 32	3.79 / 33	3.78 / 35	3.74 / 25	3.82 / 56	left skew
Total	3.62 / 65	3.70 / 53	3.74 / 61	3.76 / 31	3.76 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.40 / 6	4.50 / 4	/ 0	4.40 / 11	normal
Board members	4.40 / 6	4.80 / 6	4.57 / 7	4.67 / 3	4.60 / 22	uniform
Collectors/ Processors	4.30 / 14	4.56 / 20	4.23 / 15	4.67 / 3	4.44 / 31	extreme left skew
Suppliers	4.39 / 32	4.44 / 33	4.50 / 35	4.50 / 25	4.36 / 56	extreme left skew
Total	4.36 / 65	4.51 / 53	4.44 / 61	4.54 / 31	4.43 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement S is somewhat variable. Stakeholder Associations are neutral with a low bias for agreement, Collectors/Processors are neutral with a moderate bias for agreement, and Suppliers exhibit a strong bias for agreement. Board Members agree with statement S and have a low bias for strong agreement.

Within the four provincial associations and their respective member groups, there is little variability. For Board Members MARRC Board Members (4.67) exhibited the strongest agreement. MARRC and BCUOMA Collectors/Processors exhibit a neutral stance regarding with no significant bias. Other Collectors/Processors exhibit a moderate bias for strong agreement. All Suppliers are consistent in rating, and indicate agreement with a high bias for strong agreement. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. All provincial associations are neutral, however while BCUOMA exhibits a moderate bias for agreement (3.62), AUOMA (3.70), SARRC (3.74), and MARRC (3.76) exhibit a strong bias.

Overall respondents neither agree nor disagree that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil are reasonable.

Statistical Findings Importance

Statement S is generally rated as somewhat important, with a medium to high bias for choosing extremely important. Board Members indicate that the statement is somewhat important and are strongly biased to extremely important. Stakeholder Associations, Collectors/Processors, and Suppliers illustrate a moderate bias to choosing extremely important.

Within the four provincial associations and their respective member groups, there exists little variability. BCUOMA Stakeholder Associations (4.0), SARRC Collectors/Processors (4.23), BCUOMA Collectors/Processors (4.30), BCUOMA Board Members (4.40), and AUOMA Stakeholder Associations (4.40) indicated the lowest importance rating. AUOMA Board Members (4.80), MARRC Board Members (4.67), and MARRC Collectors/Processors (4.67) scored the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. All provincial associations indicate the statement as somewhat important with a moderate bias towards extreme importance.

Overall respondents indicate that it is important that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil be reasonable.

Comments

- "Fees on oil are too high. Nearly self sufficient already."

Statement T

UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.25 / 6	3.50 / 4	/ 0	3.33 / 11	uniform
Board members	3.60 / 6	4.20 / 6	4.29 / 7	4.67 / 3	4.15 / 22	left skew
Collectors/ Processors	3.10 / 14	3.65 / 20	3.54 / 15	3.67 / 3	3.48 / 31	left skew
Suppliers	3.63 / 32	3.67 / 33	3.62 / 35	3.62 / 25	3.65 / 56	left skew
Total	3.49 / 65	3.68 / 53	3.68 / 61	3.74 / 31	3.68 / 120	
Distribution	left skew	normal	left skew	left skew		

Statistical Findings Agreement

Agreement with statement T is somewhat variable. Stakeholder Associations are neutral with a low bias for agreement, Collectors/Processors are neutral with a moderate bias, and Suppliers exhibit a strong bias for agreement. Board Members agree with statement T and have a low bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Although each group is generally in consensus (illustrating a low standard deviation) Board Members and Collectors/Processors illustrate minimal variation. BCUOMA members, whose ratings are consistently low, cause the variation.

There exists some variability between the four provincial associations. All provincial associations are neutral, however while AUOMA members exhibits a moderate bias for agreement (3.49), AUOMA (3.68), SARRC (3.68), and MARRC (3.74) exhibit a strong bias.

Overall, respondents neither agree nor disagree that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters are reasonable.

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.75 / 6	4.25 / 4	/ 0	4.44 / 11	normal
Board members	4.40 / 6	4.80 / 6	4.29 / 7	4.67 / 3	4.50 / 22	uniform
Collectors/ Processors	4.00 / 14	4.59 / 20	4.08 / 15	4.67 / 3	4.36 / 31	extreme left skew
Suppliers	4.22 / 32	4.38 / 33	4.50 / 35	4.47 / 25	4.27 / 56	extreme left skew
Total	4.19 / 65	4.52 / 53	4.35 / 61	4.52 / 31	4.35 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Importance

Statement T is generally rated as somewhat important, with a low to medium bias for extremely important. Board Members, Stakeholder Associations, and Collectors/Processors indicate that the statement is somewhat important and are moderately biased to extremely important. Suppliers illustrate a low bias to choosing extremely important.

Within the four provincial associations and their respective member groups, there exists very little variability. BCUOMA Stakeholder Associations (4.0), BCUOMA Collectors/Processors (4.0), SARRC Collectors/Processors (4.08), and BCUOMA Suppliers (4.22) indicate the lowest importance rating. AUOMA Board Members (4.80), AUOMA Stakeholder Associations (4.75), MARRC Board Members (4.67), and MARRC Collectors/Processors (4.67) score the highest. The variability experienced by Stakeholder Associations is primarily due to their small sample size.

There exists some variability between the four provincial associations. All provincial associations indicate the statement as somewhat important, however while the AUOMA indicate a low bias towards extreme importance (4.19), SARRC (4.35), AUOMA (4.52), and MARRC (4.52) exhibit a moderate bias.

Overall, respondents indicate that it is important that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil filters be reasonable.

Comments

While statistical analysis suggests that respondents neither agree nor disagree with the statement, comments reveal considerable disagreement.

- "The EHC on filters is on a per unit basis and the RI is on a per Kg basis. This has created a situation where the RI's are not generating an adequate recovery of the EHC"
- "Oil filter EHC's are too high relative to associated RIs, with the result that filters are to a degree subsidizing used oil - which is not aligned with program principles."
- "I believe that the programs should look into paying oil filter processors in their province a RI for filters processed in their province. This may help close the loop in each province and stop the shipments of hazardous wastes from Province to Province."
- "There are far too many sizes of filters to be lumped into 2 categories."
- "The requirement to identify filters by length is a concern. I have requested this data from large vendors who have not been able to provide it. The only option would be to physically measure the filters myself, which is not cost effective. My answer is to code them all as a large filter regardless of size.
- "Identifying a sump filter is proving to be almost impossible. An oil filter is an oil filter."

Statement U

UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.25 / 6	3.50 / 4	/ 0	3.33 / 11	extreme left skew
Board members	3.80 / 6	4.20 / 6	4.00 / 7	4.67 / 3	4.11 / 22	extreme left skew
Collectors/ Processors	2.36 / 14	2.88 / 20	2.86 / 15	2.00 / 3	2.81 / 31	uniform
Suppliers	3.65 / 32	3.60 / 33	3.50 / 35	3.60 / 25	3.59 / 56	left skew
Total	3.33 / 65	3.39 / 53	3.38 / 61	3.54 / 31	3.46 / 120	
Distribution	normal	normal	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	4.00 / 1	4.75 / 6	4.25 / 4	/ 0	4.44 / 11	-
Board members	4.40 / 6	4.80 / 6	4.29 / 7	4.67 / 3	4.50 / 22	uniform
Collectors/ Processors	4.00 / 14	4.63 / 20	4.25 / 15	4.67 / 3	4.42 / 31	extreme left skew
Suppliers	4.27 / 32	4.36 / 33	4.50 / 35	4.50 / 25	4.32 / 56	uniform
Total	4.22 / 65	4.52 / 53	4.39 / 61	4.54 / 31	4.39 / 120	
Distribution	extreme left skew	left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement U is somewhat variable. Stakeholder Associations are neutral with a low bias for agreement. Suppliers are neutral with a exhibit a strong bias for agreement, Collectors/Processors disagree, with a strong bias to neutrality. Board Members agree with statement U and have a low bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Agreement was strongest with MARRC Board Members (4.67), AUOMA Board Members (4.20), and SARRC Board Members (4.0). Collectors/Processors exhibit the lowest agreement scores, and the highest variability and standard deviations. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at each rating level (1 to 5) averaging to a neutral response. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that Stakeholder Associations, Suppliers and Board Members are generally in consensus within their groups.

There exists some variability between the four provincial associations. All provincial associations are neutral, however BCUOMA (3.33), AUOMA (3.39), and SARRC (3.38) rate agreement more similarly than MARRC (3.54).

Overall, respondents neither agree nor disagree that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers are reasonable.

Statistical Findings Importance

Statement U is generally rated as somewhat important, with a low to moderate bias for choosing extremely important. Board Members, Stakeholder Associations, and Collectors/Processors indicate that the statement is somewhat important and are moderately biased to extremely important. Suppliers illustrate a low bias to choosing extremely important.

Within the four provincial associations and their respective member groups, there exists very little variability. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. All provincial associations indicate the statement as somewhat important, however while the AUOMA indicated a low bias towards extreme importance (4.22), SARRC (4.39), AUOMA (4.52), and MARRC (4.54) exhibit a moderate bias.

Overall, respondents indicate that it is important that UOMA's Environmental Handling Charges (EHC) and Return Incentive (RI) rates for used oil containers be reasonable.

Comments

On average, comments illustrate disagreement with the statement by Collectors/Processors, and support for raising EHCs and RIs for containers.

- "Increase EHC and RI on plastic containers"
- "The recycling of containers is not a good business to be in."
- "The RIs and EHCs need to see a large increase."
- "There is a very high resource requirement to manage the containers."
- "The management of empty oil containers is very time and space consuming, the RIs don't compensate for this"

Furthermore, Board Members, Suppliers, and Collectors/Processors all agree that filters and containers need to be reassessed.

- "Cross subsidization of the waste stream is a problem. Used oil filter charges are more than used oil. You get people pumping used oil into filter drums and cheating the system."
- There exists a huge discrepancy between automotive filter weights and industrial filter weights but they get paid the same."
- "There should be different rates for different areas. UOMA should look into implementing RIs by zones, rather than offering a single blanket rate."

Statement V

Overall, UOMA has increased my awareness of the importance of recovery of used oil materials in an environmentally sound manner.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	1.00 / 1	3.25 / 6	4.00 / 4	/ 0	3.33 / 11	extreme left skew
Board members	3.67 / 6	4.80 / 6	4.29 / 7	4.33 / 3	4.24 / 22	uniform
Collectors/ Processors	3.29 / 14	3.47 / 20	3.53 / 15	2.67 / 3	3.53 / 31	left skew
Suppliers	3.73 / 32	3.77 / 33	3.79 / 35	3.79 / 25	3.77 / 56	left skew
Total	3.55 / 65	3.73 / 53	3.80 / 61	3.73 / 31	3.76 / 120	
Distribution	left skew	left skew	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.50 / 6	4.50 / 4	/ 0	4.56 / 11	uniform
Board members	4.67 / 6	4.80 / 6	4.33 / 7	4.67 / 3	4.60 / 22	extreme left skew
Collectors/ Processors	4.42 / 14	4.39 / 20	4.21 / 15	4.00 / 3	4.36 / 31	uniform
Suppliers	3.87 / 32	3.93 / 33	3.91 / 35	3.78 / 25	3.92 / 56	left skew
Total	4.12 / 65	4.19 / 53	4.07 / 61	3.90 / 31	4.21 / 120	
Distribution	left skew	left skew	left skew	left skew		

Statistical Findings Agreement

Agreement with statement V is somewhat variable. Stakeholder Associations are neutral with a low bias for agreement. Collectors/Processors exhibit a moderate bias, and Suppliers exhibit a strong bias. Board Members agree with statement V and have a low bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. This is especially true of Stakeholder Associations, who exhibit a high standard deviation due to their small sample size. For Collectors/Processors, agreement with this statement shows a high standard deviation. The standard deviation is not due to outliers; instead, the cause is a relatively uniform distribution of responses at each rating level (1 to 5) averaging to a neutral response. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that Stakeholder Associations, Suppliers and Board Members are generally in consensus within their groups.

There exists some variability between the four provincial associations. All provincial associations are neutral, however BCUOMA exhibits a moderate bias towards agreement (3.33), whole SARRC (3.80), AUOMA (3.73), and MARRC (3.73) display a strong bias.

Overall, respondents neither agree nor disagree that UOMA has increased their awareness of the importance of recovery of used oil materials in an environmentally sound manner.

Statistical Findings Importance

Statement V is generally rated as somewhat important, with no to moderate bias for choosing extremely important. Board Members, Collectors/Processors and Stakeholder Associations indicate that the statement is somewhat important and are moderately biased to indicating that it is extremely important. Suppliers illustrate no significant bias and are most likely to choose somewhat important.

Within the four provincial associations and their respective member groups, there exists considerable variability. Suppliers indicate the lowest importance rating. BCUOMA Stakeholder Associations (5.0), AUOMA Board Members (4.80), MARRC Board Members (4.67), and BCUOMA Board Members (4.67) score the highest. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists considerable variability between the four provincial associations. BCUOMA (4.12) and AUOMA (4.19) indicate that statement V is somewhat important, with a low bias to indicating that it is extremely important. SARRC members exhibit no significant bias, and rate the statement as somewhat important (4.07). MARRC members are neutral in regards to the statement, with a strong bias towards indicating that the statement is somewhat important (3.90).

Overall, respondents indicate that it is important that UOMA increases their awareness of the importance of recovery of used oil materials in an environmentally sound manner.

Comments

Comments exhibit a moderate agreement for statement V. However, Collectors/Processors and Suppliers indicate disagreement that was not fully captured by statistical data.

- "Overall, the awareness was already there, but UOMA increased my awareness by meeting the challenge of recovering used oil."
- "All association bodies need to educate, re-educate and continue to do so. I did not know of these initiatives before joining one of the western boards and feel that information on used oil recycling does not get the "air" time it deserves with the general public."
- "You need to be aware of the options. UOMA relies on service providers to be in compliance with the law."
- "I have worked in the business for 22 years, so it was not UOMA that improved my awareness."
- "Used oil recycling is a good concept, you can stay in business because money is always coming in."
- "The program has stressed the downside of not collecting and reprocessing."
- "The awareness UOMA generates maximizes collection and drives good recovery and collection practices."

Statement W

UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	3.83 / 6	4.00 / 4	/ 0	3.82 / 11	extreme left skew
Board members	4.33 / 6	4.80 / 6	4.57 / 7	3.67 / 3	4.43 / 22	extreme left skew
Collectors/ Processors	3.46 / 14	3.47 / 20	3.73 / 15	3.67 / 3	3.60 / 31	left skew
Suppliers	4.00 / 32	4.07 / 33	3.97 / 35	4.00 / 25	3.88 / 56	left skew
Total	3.88 / 65	3.92 / 53	3.98 / 61	3.93 / 31	3.90 / 120	
Distribution	left skew	uniform	left skew	left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	4.83 / 6	4.25 / 4	/ 0	4.64 / 11	left skew
Board members	4.83 / 6	4.80 / 6	4.57 / 7	4.67 / 3	4.71 / 22	extreme left skew
Collectors/ Processors	4.55 / 14	4.39 / 20	4.50 / 15	4.67 / 3	4.43 / 31	extreme left skew
Suppliers	4.21 / 32	4.24 / 33	4.16 / 35	4.18 / 25	4.16 / 56	left skew
Total	4.38 / 65	4.40 / 53	4.30 / 61	4.29 / 31	4.38 / 120	
Distribution	extreme left skew	extreme left skew	left skew	left skew		

Statistical Findings Agreement

Agreement with statement W is somewhat variable. Stakeholder Associations, and Suppliers are neutral with a strong bias for agreement. Collectors/Processors exhibit a moderate bias, and Suppliers exhibit a strong bias. Board Members agree with statement W and have a moderate bias for strong agreement.

Within the four provincial associations and their respective member groups, there is considerable variability. Agreement was strongest among Board Members, with MARRC Board Members deviating from this group. However, the variance caused by this small group is not statistically significant. Collectors/Processors exhibit the lowest agreement scores and the highest variability and standard deviation. The high standard deviation is due to a number of responses that are grouped in the lower range of agreement. For the purpose of this analysis, this group of outliers has been determined to be representative of the population, and have been left in the analysis. Overall, none of the other groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. BCUOMA members indicate neutrality with a strong bias for agreement (3.88). SARRC (3.98), MARRC (3.93), and AUOMA (3.92) indicate that they are in agreement and a significant bias.

Overall, respondents agree that UOMA has been effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

Statistical Findings Importance

Statement W is rated as somewhat important, with a low to moderate bias for choosing extremely important. Stakeholder Associations, and Collectors/Processors indicate that the statement is somewhat important and are moderately biased to indicating that it is extremely important. Board Members exhibit a strong bias, whereas Suppliers illustrate a low bias.

Within the four provincial associations and their respective member groups, there exists little variability. BCUOMA Stakeholder Associations (5.0), AUOMA Stakeholder Associations (4.83), BCUOMA Board Members (4.83), and AUOMA Board Members (4.80) indicate the highest importance. Suppliers indicate the lowest importance scores, with SARRC Suppliers exhibiting the lowest (4.16). Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. BCUOMA (4.38), AUOMA (4.40), SARRC (4.30), and MARRC (4.29) score statement W as somewhat important with a low-moderate bias for extreme importance.

Overall, respondents indicate that it is important that UOMA is effective in facilitating private industry's collection and reprocessing and recycling of used oil materials in Western Canada.

Comments

While there is consensus among members and groups over the importance of statement W, agreement varies as to whether UOMA is facilitating the reprocessing and recycling of used oil.

- "In one word...Dissolve. UOMA is an administrative nightmare that provides no real gain to commercial or household generators."
- "Our costs to operate have increased and they seem like UOMA is not interested in out requests for compensation."
- "UOMA made a start at used oil recycling and reprocessing, but it is not 100% effective. Too many people (public and industry) do not know UOMA and UOMA members are here."
- "It should be UOMA's responsibility to offer incentives and facilitate the removal of roads blocks."
- "We are seeing a number of Collectors/Processors in each geographic area. Where the program exists so does competition and success."
- "There are a whole bunch of recycling and reprocessing businesses that wouldn't be around if it wasn't for UOMA."
- "Effective used oil recycling wouldn't have happened without UOMA."

Statement X

Overall, UOMA's programs have improved the collection of used oil materials in Western Canada.

Agreement

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	3.00 / 1	4.33 / 6	4.50 / 4	/ 0	4.27 / 11	-
Board members	4.33 / 6	4.60 / 6	4.71 / 7	4.67 / 3	4.57 / 22	extreme left skew
Collectors/ Processors	3.69 / 14	4.25 / 20	4.14 / 15	4.33 / 3	4.20 / 31	uniform
Suppliers	4.18 / 32	4.28 / 33	4.16 / 35	4.14 / 25	4.12 / 56	left skew
Total	4.04 / 65	4.30 / 53	4.25 / 61	4.21 / 31	4.24 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Importance

	BCUOMA	AUOMA	SARRC	MARRC	Total	Distribution
Associations	5.00 / 1	5.00 / 6	4.75 / 4	/ 0	4.91 / 11	extreme left skew
Board members	5.00 / 6	4.80 / 6	4.86 / 7	5.00 / 3	4.90 / 22	extreme left skew
Collectors/ Processors	4.55 / 14	4.68 / 20	4.46 / 15	4.33 / 3	4.68 / 31	extreme left skew
Suppliers	4.52 / 32	4.59 / 33	4.48 / 35	4.50 / 25	4.44 / 56	extreme left skew
Total	4.60 / 65	4.68 / 53	4.55 / 61	4.54 / 31	4.64 / 120	
Distribution	extreme left skew	extreme left skew	extreme left skew	extreme left skew		

Statistical Findings Agreement

Agreement with statement X is exhibits little variability. Stakeholder Associations, Collectors/Processors, and Suppliers agree and exhibit a low bias for agreement. Board Members agree with statement X and have a moderate bias for strong agreement.

Within the four provincial associations and their respective member groups, there is little variability. Agreement is strongest with Board Members, MARRC Collectors/Processors, SARRC Stakeholder Associations, and AUOMA Stakeholder Associations. BCUOMA Stakeholder Associations (3.0), SARRC Suppliers (4.14), MARRC Suppliers (4.16), and BCUOMA Suppliers (4.18) indicate the lowest agreement rating. Overall, none of the groups display a significant standard deviation in their agreement rating, indicating that there is consensus between group members.

There exists some variability between the four provincial associations. BCUOMA members indicate agreement no significant bias for strong agreement (4.04). AUOMA (4.30), SARRC (4.25), and MARRC (4.21) exhibit a moderate bias.

Overall, respondents agree that UOMA's programs have improved the collection of used oil materials in Western Canada.

Statistical Findings Importance

The rated importance of statement X is slightly variable between groups. Stakeholder Associations, and Board Members indicate that the statement is extremely important with no significant bias. Collectors/Processors rate statement X as somewhat important with a strong bias for extreme importance, while Suppliers exhibit a moderate bias.

Within the four provincial associations and their respective member groups, there exists little variability. BCUOMA Stakeholder Associations (5.0), AUOMA Stakeholder Associations (5.0), and BCUOMA Board Members (5.0) indicate the highest importance ratings. SARRC Suppliers (4.48), SARRC Collectors/Processors (4.46), MARRC Collectors/Processors (4.33), and MARRC Suppliers (4.44) indicate the lowest importance scores. Overall, none of the groups display a significant standard deviation in their importance rating, indicating that there is consensus between group members.

There exists little variability between the four provincial associations. BCUOMA (4.60), AUOMA (4.68), SARRC (4.55), and MARRC (4.54) scored statement X as somewhat important with a moderate bias for extreme importance.

Overall, respondents indicate that it is important that UOMA's programs improve the collection of used oil materials in Western Canada.

Comments

Generally, comments support both the importance of statement X, and indicate a high level of agreement.

- “Customers can see the effect of the programs implemented by UOMA.”
- “The organization and its programs are an essential component to integrated waste management in Alberta, and in all aspects of environmental protection.”
- “Recyclable products, especially Plastics, had no market value and now they have become valuable.”
- "Thanks to UOMA, Ecodays and promotion are gaining more and more public knowledge."

However, a number of comments indicate disagreement regarding the statement

- "In BC there is a lack of true support and the program is not as successful as is could be."
- "In Saskatchewan UOMA pays different RI rates and recycling and reprocessing has become a bidding war over cash."
- "Why does UOMA endorse polluting the air for heating in the winter with paying space heaters the RI? "
- "The preferred use for the oil should be able to sell the product for more. Subsidizing less desired processes will create a false economy. Re-refining is a negative use of energy and creates huge environmental issues with waste water, etc."
- "This was an opportunity for the AUOMA to demonstrate leadership by moving the program to the next level. This is an opportunity lost. ""Recycling was being serviced well before BCUOMA, they just took over something that was already running.”
- “The industrial and commercial generators have actually been penalized by this program.”

APPENDIX G

CONVERSION RATES

APPENDIX G CONVERSION RATES

The data attained from the different programs was area specific. For example, US gallons had to be converted into litres in order to facilitate a stronger comparison.

Metric Conversions	Conversion Factor (Multiplication)	Source
US Gallons to Litres	3.785 L/Gallon	http://www.thetipsbank.com/convert.htm
Tons to Kilograms	1016.05 KG/Ton	http://www.thetipsbank.com/convert.htm
Kilograms to Litres	1.1249 L/KG	www.npi.gov.au/handbooks/approved_handbooks/pubs/foilrecy.pdf

Exchange Rates (January 27, 2005)	Conversion Factor (Multiplication)	Source
USD to CAD	**1.23070**	**http://www.x-rates.com/**
AUD to CAD	**0.95392**	**http://www.x-rates.com/**
ZAR to CAD	**0.20789**	**http://www.x-rates.com/**
EUR to CAD	**1.60988**	**http://www.x-rates.com/**
GBP to CAD	**2.31778**	**http://www.x-rates.com/**

APPENDIX H

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APPENDIX H ACKNOWLEDGMENTS

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