

**TXDOT / ENVIROMEDIA**

# **VISIBLE LITTER STUDY**

## *Final Report*

January 28, 2002



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**NuStats**

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# EXECUTIVE SUMMARY

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Every year, thousands of tons of litter collect on Texas roadsides. Beginning in the fall of 2000, NuStats, in cooperation with Tuerff-Davis EnviroMedia and the Texas Department of Transportation (TxDOT), conducted a litter survey to better understand the amounts and types of litter that are deposited on Texas roadways. The survey involved collecting litter data from 125 research segments across the Lone Star State, each consisting of a 500 or 1,500 feet long stretch of TxDOT-maintained roadway.

## ANNUAL LITTER ESTIMATES

The results of the 2001 Texas litter survey indicate that approximately 1,033,000,000 items accumulate annually on the state-maintained highway system (comprised of Interstate Highways, US Highways, State Highways and Farm-to-Market roads). This roughly equates to 465,000 cubic yards or 21,000 tons of litter.

On a mile per mile basis, the largest amount of litter accumulates on the Interstate Highway system (2,500 items per month per mile), followed by State Highways (1,900 items per month per mile), US Highways (1,000 items per month per mile), and finally Farm-to-Market Roads (900 items per month per mile).

Overall, there has been a fifty-two percent (52%) reduction in litter on the state-maintained highway system since 1995.

## PHYSICAL COMPOSITION ANALYSIS

Nearly 20,000 items of litter were collected, analyzed, and classified by their physical composition. Three types of litter comprise more than 90 percent of all litter collected.

- Almost half (49%) of all items were made of paper and paperboard. These items ranged from paper grocery bags to miscellaneous pieces of cardboard.
- Thirty percent (30%) of collected items were plastic, making this the second most common type of litter.
- Fourteen percent (14%) of the items were classified as metal items.

The remaining litter was comprised of glass, textiles, rubber/leather, and wood.

## LITTER USE ANALYSIS

Analyzing litter by its use provides insight on how and why litter might be generated in the first place. The collected litter was categorized into 10 separate broad litter use categories. Three categories comprise nearly two-thirds of all litter collected.

- One out of every five items of litter (20%) was food-related litter. Items in this category include fast food trays, food wrap, food utensils, beverage cups, ice bags, and condiment packs.
- Household/personal items (household-generated litter such as grocery bags, paper towels, tissues, etc.) and tobacco-related items (cigarette butts, snuff cans, chewing tobacco pouches, etc.) each accounted for 19 percent of litter collected.

The remaining seven litter use categories, in descending order, included non-alcoholic beverage litter, alcoholic beverage litter, construction/industrial litter, printed material litter, other litter, automotive litter, and agriculture/garden litter.

### **LITTER ITEM ANALYSIS**

Over 99 percent of litter collected was identifiable.

The most common litter item found on Texas roadways was the cigarette butt, which comprised 14 percent of all identifiable litter. In 1995, this litter item made up 48 percent of all identifiable litter, representing a substantial reduction.

Other litter items frequently found during the 2001 litter survey were cardboard pieces (12%), food wrap (9%), beer cans (6%), beverage cups (6%), tissues and paper towels (5%), cigarette packs (4%), and soda cans (4%).

### **BRAND NAME ANALYSIS**

Approximately 56 percent of all litter collected was identifiable by brand name.

Brand name cigarettes accounted for approximately one-fourth (24%) of all identifiable brand names.

- Fifteen percent of all brand name cigarettes were Marlboro® (12%) and Marlboro Light® (3%).
- Doral® (4%), Salem® (3%) and Newport® (2%) were the next most prominent litter brand names.

Other often-found brand names included Bud Light® (3%), Coca-Cola Classic® (3%), Texas Lottery (3%), Dr. Pepper® (3%), Budweiser® (3%) and McDonald's® (3%).

### **INFLUENCES OF LITTER AMOUNTS**

In addition to creating statewide litter estimates and analyzing the types of litter found on Texas roadways, the 2001 litter survey sought to uncover variables that potentially affect the amounts of litter that accumulate on the state-maintained roadway network.

#### ***Traffic Volume***

Traffic volume is the single most significant factor that influences the amount of litter on Texas roadways.

Previous litter studies have shown that roads that are heavily traveled are “dirtier” than less traveled roads – increased traffic equals increased litter. The 2001 Texas litter survey results support these previous findings.

### ***Sources of Litter***

Establishments such as convenience stores, fast food restaurants, and gas stations represent potential litter sources. The presence of these facilities may increase or decrease the amount of litter that is found on roadways within close proximity of them. The major findings related to proximity of litter sources and litter volumes are:

- As the number of these potential litter sources increase, so do the amounts of roadside litter.
- A statistically significant relationship between litter amounts and the proximity of fast food restaurants, liquor stores, parks, rest stops, and shopping malls was measured on at least one research segment.



# INTRODUCTION

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## PREFACE

This report documents the design, methodologies, implementation and results of a Visible Litter Study (VLS) conducted in the State of Texas. The project, conducted by NuStats under subcontract to Tuerff-Davis EnviroMedia, was sponsored by the Texas Department of Transportation (TxDOT). This report presents the following:

- Quantitative measurement of statewide roadside litter
- Relationships between roadside litter and variables suspected of influencing roadside litter amounts
- Effectiveness of present litter prevention techniques

## PURPOSE OF THE PROJECT

Few people argue that roadside litter is aesthetically disruptive to an afternoon drive through the country. Whether it is a glass bottle in the Gulf Coast or a plastic bag in the Piney Woods, Texans have voiced their discontent with the state of roadside litter in the Lone Star State.

In an attempt to reduce litter amounts and preserve the beauty of Texas Highways, TxDOT is actively engaged in several litter prevention programs.

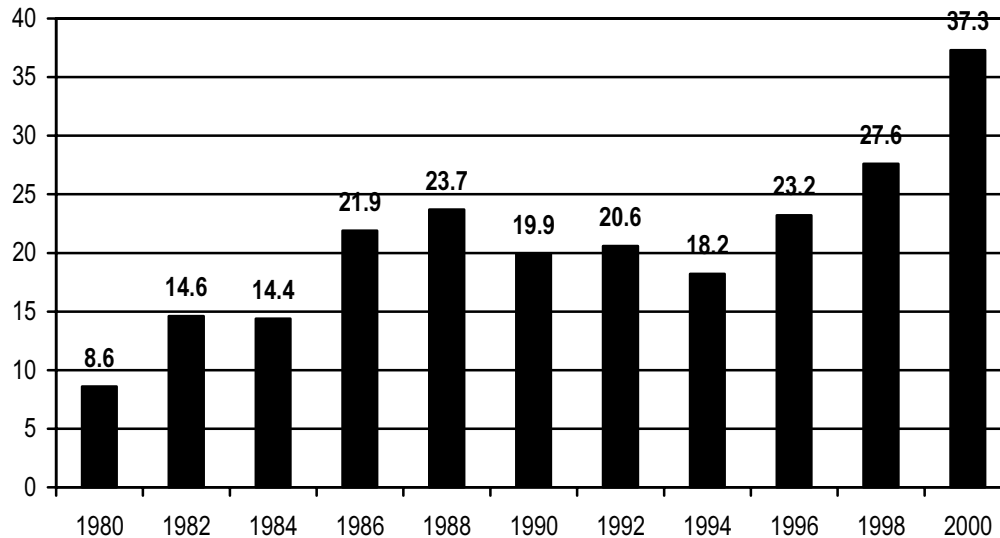
- The well-known Adopt-a-Highway (AAH) program, conceived in the TxDOT Tyler District in 1985, began when a civic group accepted a challenge to “adopt” a two-mile stretch of roadway. As of 1999, this program had grown to encompass more than 4,000 volunteer groups responsible for more than 8,400 miles of roadway statewide, approximately 11% of all TxDOT maintained centerline miles.
- The Don’t Mess with Texas (DMWT) public education campaign has a long history of success in the state both for its use of well-known spokespersons, and for its tough stance on litter. In addition to promoting public awareness, the campaign includes such programs as the annual Don’t Mess with Texas Trash-Off and the Don’t Mess with Texas Partners. Recent survey findings suggest that this campaign is successful in reducing the percentage of all Texans that admit to littering.

Coupled with the grassroots efforts of Keep Texas Beautiful, which advocates community involvement in beautification efforts, the AAH and DMWT programs save taxpayers approximately \$2-\$4 million a year in litter related expenditures.

Despite these litter prevention efforts, TxDOT is faced with an ever-increasing amount of roadway for which it is responsible. According to the 2000 Texas Department of Transportation District and County Statistics (DISCOS), TxDOT is responsible for the maintenance of over 72,000 centerline miles of road. This represents nearly 1,100,000 acres of right of way, a 37% increase in the last five years alone. Coupled with a 6.62% increase in vehicle miles traveled from 1999 to 2000, these statistics pose an increasing challenge to the current TxDOT maintenance budget.

As demonstrated in Figure 1, TxDOT currently spends more than \$37 million annually in litter cleanup expenditures. This represents a 433% increase since 1980, when TxDOT spent \$8.6 million on litter cleanup expenditures.<sup>1</sup>

**FIGURE 1:  
TXDOT ANNUAL LITTER EXPENDITURES 1980-2000**



In the Spring of 2000, TxDOT expressed interest in conducting a statewide litter survey with the following objectives:

- 1) Produce a statistically reliable statewide roadway litter estimate
- 2) Characterize the type of litter found on Texas roadways
- 3) Document the statistical relationships between litter accumulation and influential variables
- 4) Gauge the effectiveness of current litter intervention programs
- 5) Establish a baseline for monitoring future statewide litter reduction programs

## **THE LITTER SURVEY**

Since the mid 1970s, litter surveys have been used with increasing frequency by several government and private agencies to quantify roadside litter. Both full-scale litter and visible litter surveys helped these agencies to determine:

- The rate at which roadside litter is deposited
- The effectiveness of litter prevention programs and legislation
- The composition of litter
- The factors that affect litter deposition
- The progress achieved in reducing overall amounts of roadside litter

<sup>1</sup> A renewed focus on maintenance efforts within TxDOT is largely responsible for the increase in annual litter expenditures from 1994 to 2000. This increase is not strictly attributable to the increase in litter during this time period.



Full-scale surveys differ from visible litter surveys in that the former measures both fresh and accumulated litter, whereas the later measures only accumulated litter. The full-scale variety captures litter data that is much more detailed than that obtained in the visible litter survey. While the full-scale survey is an effective tool in the management of roadside litter, it is generally very expensive to conduct. However, the visible litter survey provides valuable, though less detailed, information in a shorter period of time and at lower costs.

Regardless of the type of litter survey conducted, there are several factors that have the potential to affect the amounts and rates at which roadside litter is deposited. Table 1 identifies the variables and briefly explains their potential effect on litter deposition.

**TABLE 1:  
VARIABLES POTENTIALLY AFFECTING ROADSIDE LITTER**

VARIABLE	POTENTIAL AFFECT ON ROADSIDE LITTER
Traffic Volume	Increases in traffic volume may result in increased amounts of roadside litter
Pedestrians	Increases in pedestrian traffic volume may lead to increased amounts of roadside litter
Rainfall	Increases in rainfall may decrease the amounts of roadside litter
Temperature	Fresh litter rates may tend to increase linearly with temperature
Urbanization	Increased housing density may increase amounts of roadside litter
Neighborhood Income	Increased neighborhood incomes may result in decreased amounts of litter
Property Ownership	Neighborhoods with higher percentages of property ownership (as opposed to rental property) may exhibit decreased amounts of litter

Litter surveys often vary according to the unit of measure. While a number of measures have been used to quantify litter, none have proved to be more reproducible and consistent than the item count. Here, the items are simply removed from the sample site and counted. Area measurement, where the items are placed on a grid of known area and the aggregate area recorded, has also proved useful. Other measures such as weight and volume measurement, although useful, exhibit a lower level of reproducibility and a higher level of site-to-site variability. For this reason, primary emphasis is generally placed on the item count when drawing conclusions or making comparisons between other surveys.



# METHODOLOGY

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## THE 2001 TEXAS LITTER SURVEY

This report contains the results of data collected during a two-phased Visible Litter Survey. Phase I began in October of 2000 and culminated in February of 2001 with an interim research report based on data collected from 41 sample sites across the state of Texas. The Phase I Interim Report provided EnviroMedia and TxDOT with preliminary data for use in conducting strategic planning for the DMWT campaign and other litter control programs.

Phase II essentially began immediately following the end of Phase I. At this time, several revisions were implemented into the Phase II methodology with the intention of increasing both the quality of data collection and the efficiency and processing of that data. These revisions are highlighted later in this report. Data collection for Phase II began on May 31, 2001 and ended July 31, 2001. This data included quantitative and qualitative litter information collected on 84 sites throughout the state of Texas.<sup>2</sup>

This document provides research based on data collected from 125 sites during both phases of the Visible Litter Study.

## SAMPLE DESIGN

A critical component of this study was the formulation of a sampling plan that would yield data indicative of the litter accumulation on Texas highways. Since the objective of this survey was to determine statewide litter projections, the sampling plan included:

- The number of samples
- The distribution of samples
- The sampling stratification

The most recent litter survey (1995) designated a minimum sample size of 92 sites, geographically dispersed throughout the state of Texas, to achieve 10% precision at the 80% confidence level. At the onset of Phase I, the project team established a minimum sample size of 140 for this survey. The number of sample sites was increased from 92 to 140 to compensate for the increase in both centerline miles and daily vehicle miles in Texas over the last six years. As a result of Phase II modifications, which facilitated the more efficient collection of litter data, the original sample size was ultimately reduced to 126.

Since littering on private land was not an impetus for this research, the statewide litter data was collected on public roadway rights-of-way and medians. The four types of roadway targeted for this study were those maintained by TxDOT and comprised the sampling frame. These consisted of the following roads:

- 1) Interstate Highways (IH)
- 2) United States Highways (US)
- 3) State Highways (SH)
- 4) Farm-to-Market Roads (FM)

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<sup>2</sup> Eighty-five sites were originally targeted for Phase II data collection. One site was lost during this during this project phase for a total of 125 Visible Litter Study segments.

NuStats used a disproportionate stratified sampling method to divide the state into geographic sub-regions from which replicates, or sub-samples, could be selected. Estimates for each replicate can be calculated with more precision from stratified sampling than if the entire sample frame were randomly sampled. The 25 TxDOT districts constituted these sub-regions (See Attachment 2).

To determine the number of sample sites from each region, NuStats developed a matrix of key variables. This matrix paired each of the 25 TxDOT districts with the number of Daily Vehicle Miles (DVM) driven in that district. A daily vehicle mile is defined as the average mileage driven on state-maintained roadways in one day. The districts were ranked in descending order based on their respective DVM. The total state DVM on TxDOT-administered roadways was then divided by 126, the initial target sample number, to determine how often a sample site should be selected from each district. Finally, the number of sample sites from each district was proportionately distributed by road type and traffic volume.

## **SAMPLE SITE SELECTION**

The sample sites in each district were selected to satisfy the sampling matrix criteria mentioned in the previous section. TxDOT 1999 District Highway Traffic maps were used to select the general area in which the segment should be located. Not only did these maps serve as a geographic reference, they also provided the latest Annual Average Daily Traffic (AADT) counts, which were utilized in computing the correlations between litter density and traffic volumes.

Using this general description as a reference, the litter contractors traveled to the designated site and were instructed to locate and clearly mark each end of the sample segment. These markers consisted of flagged stakes and served as an identifier to TxDOT personnel and third party contractors. Further information regarding selection of sample segments may be found in the Visible Litter Study Field Manual (Attachment 3).

Of the 125 sample sites, the majority of the sites were selected to provide a snapshot of statewide roadside litter accumulation rates in relation to variables such as geographic region, road type, traffic volume and other key factors.

In its effort to curtail roadside litter, TxDOT employs a multi-faceted approach that combines billboard advertisements, litter fine road signs and the widely recognized Adopt-a-Highway program. The remaining sites were selected in an effort to gauge the effectiveness of these programs. Prior to site selection, NuStats obtained Don't Mess with Texas media market expenditure data. TxDOT provided data on adopted roadways as well as the location data of litter fine road signs throughout the state. Sites displaying both high levels of litter prevention media intervention and low levels of media intervention were selected.

Those sites characterized by high levels of litter prevention media intervention are either:

- within one mile of a DMWT billboard; or
- within one mile of a litter fine road sign; or
- part of the Adopt-a-Highway program; and
- located within a media market that exhibits more than \$50,000 of DMWT media expenditure.

Those sites characterized by low levels of litter prevention media intervention are:

- greater than one mile of a DMWT billboard;
- greater than one mile of a litter fine road sign;
- not part of the Adopt-a-Highway program; and
- located within a media market that exhibits less than \$50,000 of DMWT media expenditure.

The locations of all 125 sites were provided to each of the TxDOT districts to verify the presence of a suitable median for litter accumulation and lack of construction, both present and in the near future. Upon verification, NuStats identified the sites using general highway maps and included them in the Field Manual.

## **FIELD MANUAL**

In order to standardize and control the actual fieldwork, NuStats developed a Field Manual consisting of the following sections:

- Project overview and objectives,
- Project design,
- Step-by-step procedures for the purging and inventorying of litter,
- Forms and checklists,
- List of sites with maps,
- Contact phone numbers, and
- Site selection criteria.

The Field Manual served to:

- Inform field teams about the project, their roles and provide key contact information,
- Train the field team on protocols for the initial purge, litter inventory, and data collection, and
- Serve as an overall guide for logistics and schedules.

In Phase II, the Field Manual was modified in response to ever-changing field conditions and as a result of knowledge gained during Phase I. These revisions not only increased the efficiency with which data was collected, but also helped to ensure that the data collected was of high quality and truly indicative of litter in Texas. Such revisions to the project methodology include:

- Ensuring that all segments are purged and inventoried such that all litter is collected to the full half of the roadway;
- Reducing the length of segments that exhibit center medians from 1,500 feet to 500 feet;
- Obtaining refined traffic counts for use in correlation analyses between litter density and traffic volume;
- Over-sampling so segments lost during the accumulation period can be replaced;
- Increasing involvement with TxDOT to (a) reduce the number sites that are either mowed or cleaned during the project, and (b) facilitate the collection of litter generated during the initial purge;
- Identifying the sample segments more clearly and conveying these locations to TxDOT in a more efficient manner;
- Conducting litter measurement and categorization in the field to facilitate a continuous data flow process; and
- Adding a new level of litter classification, Litter Composition.

## LABOR FORCE

In selecting a labor force (field teams) to conduct the fieldwork and data collection, many factors were taken into account. The following organizations were identified as a potential workforce:

- Volunteer groups,
- Temporary employees,
- College students,
- Civic groups, and
- Former and current TxDOT litter contractors.

Given the short timeframe for conducting the Phase I study, the only viable option was to consider individuals with past experience handling TxDOT litter contracts (former and current TxDOT litter contractors). The contractors not only owned the required equipment (e.g., signage, protective wear, vehicles and other litter collection equipment), they also possessed first-hand experience with litter collection and were located in close geographic proximity to the sample site locations. This last aspect proved to be of great importance, as their knowledge of the local transportation network facilitated the quick location of all sample sites.

A total of four teams of previous and current TxDOT litter contractors were recruited to perform the Phase I litter survey in TxDOT districts (See Table 2). The Phase II data collection was performed entirely by Team 1.

**TABLE 2:  
PHASE I FIELD TEAMS AND DISTRICT ASSIGNMENTS**

TEAM	DISTRICTS	NUMBER OF SITES	
		Targeted	Realized
Team 1	Austin	10	8
	Bryan	4	4
	San Antonio	10	7
Team 2	Houston	15	14
Team 3	Waco	6	6
Team 4	San Angelo	2	2
<b>Total</b>		<b>47</b>	<b>41</b>



# DATA COLLECTION

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This section presents an overview of the data collection and field process. Two separate field activities were required to determine the rate of litter accumulation at each of the 125 sites. These were (1) the initial litter purge (determination of the specific location, clean up, and characterization), and (2) the litter inventory (collecting and counting of litter items following a 4-8 week litter accumulation period). This section provides details on these two processes.

## THE INITIAL LITTER PURGE

The study design required that litter be allowed to accumulate on the research segments for periods varying from four to eight weeks. Accurately determining the rates of litter accumulation required several critical field preparation activities.

Prior to the initial purge, TxDOT maintenance representatives notified highway maintenance contractors (litter collectors and mowers) of the research segments in their districts and reminded them that no maintenance was to take place on these sections of marked right-of-way for the duration of the project. Likewise, district Adopt-a-Highway coordinators notified sponsor organizations with adopted sections of roadway in close proximity to research segments.

Field teams were also required to prepare the segments for the study. This first preparatory act required marking the exact boundaries of the research plot, or segment. A segment is defined as one side of an Interstate Highway, United States Highway, State Highway, or Farm-to-Market Road that is either 500 or 1,500 feet in length. The width of each segment varies such that each segment is cleaned of litter to the full half of the roadway. The full half of each roadway consists of that portion which is bound on one side by the private property line and bound on the other by an imaginary line that divides the center median in half. If no center median exists, then only the rights-of-way were collected (see the Field Manual for further information).

To assist with sample site locations, field teams were provided with a general location description of the sample site. Once teams located the general area, they selected the actual segment according to the segment selection criteria in the Field Manual. Measuring wheels were used to verify the length and width of each segment.

When the segment was clearly marked, all litter greater than two inches was removed from the site. If found in large quantities, cigarette butts were only collected for the first 100 yards and a note was made on the Segment Data Sheet (See Field Manual).

Although the litter collected during this phase was not inventoried, the teams observed general characteristics such as quantities of litter and length of time required to clean a sample site. During this initial visit to the segment site, teams recorded information unique to each particular segment on the Segment Data Sheet for use in subsequent analyses (e.g., geographic and ecological characteristics, proximity to potential litter sources, nearby land use).

NuStats monitored the litter teams on a weekly basis to obtain progress reports to resolve field issues, reconcile deviations from the project schedule, and to clearly record the exact location of the sample segments. Although TxDOT district representatives had prior knowledge of the proposed litter survey schedule, maintenance personnel and Adopt-a-Highway coordinators were contacted with updates on deviations from the project schedule and the exact locations of all sample sites within their respective district. Strict timing and synchronization of this phase was essential.

## LITTER INVENTORY

The litter inventory occurred approximately 4-8 weeks after the initial litter purge. Prior to the inventory, TxDOT district representatives were once again notified of the proposed time schedule. The litter survey teams traveled to their respective sites and collected and bagged all litter within the boundaries of the research segments. Detailed litter inventory procedures are in the Field Manual.

NuStats instructed the teams to label each bag of litter with the specific site identification number from which it was collected, as multiple sites were targeted each day. After the litter was collected, bagged, labeled, and loaded for transport, teams recorded the remaining segment-specific information on the segment data sheets.

## LITTER CATEGORIZATION

NuStats established a litter classification system. This entailed reviewing litter tally sheets from previous studies, consulting the waste characterization reports from the Texas Natural Resource Conservation Commission (TNRCC) Municipal Solid Waste Division and the Environmental Protection Agency (EPA) Office of Solid Waste, and extensive communication between EnviroMedia and TxDOT.

This classification system first categorized all litter into general “Litter Use” categories. The litter within each “Litter Use” was then classified by “Composition.” The litter within each “Composition” was then classified by “Item Description.” The final level of classification targeted individual pieces of litter and identified the “Brand Name” of that particular item. The Litter Sorting Procedure can be found in the Field Manual.

Empirical litter measurements recorded included:

- Total weight of litter collected per site (pounds)
- Total volume of litter collected per site (gallons), and
- Number of litter items found per site.

Initial data collected was recorded on the Inventory Hard Copy worksheet (See Field Manual). During Phase I, the litter contractors themselves transferred the data into an electronic Microsoft Access database designed by NuStats. Electronic data entry was conducted in the field, providing a quality control edit check of the information recorded on the Inventory Hard Copy. Prior to the litter categorization process, NuStats staff met with each litter team individually to offer instruction on litter categorization and electronic data entry.

During Phase II, when only one litter contractor was used, the Inventory Hard Copy worksheet was transmitted to NuStats, where the data was entered into an electronic format and subsequently subjected to a number of edit checks for quality control purposes.



# DATA RESULTS

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## INTRODUCTION

This section describes the findings of the Visible Litter Study data analysis, characterized by projected statewide litter rates, qualitative litter characterization, and quantitative analyses between litter and variables that have the potential to affect the rates at which it is deposited on the roadside.

The Visible Litter Study data analysis sought to provide answers to the following questions.

- How much litter accumulates on the state-maintained highway system in a given amount of time in Texas?
- How much litter accumulates on each of the four types of state-maintained roadways?
- What types of litter are most commonly found on the state-maintained highway system?
- What are the most common brand names found in Texas roadside litter?
- What is the relationship between litter amounts and variables such as:
  - ✓ Traffic volume
  - ✓ Proximity to potential litter sources
  - ✓ Litter prevention efforts

## STATEWIDE LITTER ESTIMATES, 2001

In order to generate representative statewide litter estimates, weight factors were created and applied to the litter data. This detailed process required comparing the actual length of roadway sampled during the Visible Litter Study (approximately 29 centerline miles) to the entire state-maintained highway system (approximately 72,000 centerline miles). The sample centerline miles were first stratified by road type, then by urban or rural status. Likewise, the state centerline data was stratified. The sample statistics were then compared to the state statistics and weight factors were created based upon the differences. These weight factors, when applied to the actual sample data during the analysis, facilitate statewide projections that take into account the urban and rural characteristics of the state highway system.



Table 3 indicates that slightly more than one billion litter items accumulate on the state-maintained highway system in Texas each year. The majority of this litter is generated on Farm-to-Market roads. This statistic is not surprising as Farm-to-Market roads constitute 57% of all state maintained centerline miles. Likewise, state litter contributions by road type decrease as centerline miles decrease. Table 3 also indicates that annually, approximately 21,000 tons or 465,000 cubic yards of litter are produced statewide.

**TABLE 3:  
WEIGHT, VOLUME, AND NUMBER OF LITTER ITEMS BY ROAD TYPE**

ROAD TYPE	TONS LITTER PER YEAR	CUBIC YARDS LITTER PER YEAR (THOUSANDS)	ITEMS LITTER PER YEAR (THOUSANDS)
Interstate Highway	1,600	40	97,500
US Highway	3,900	80	140,600
State Highway	4,600	103	359,200
FM Roadways	10,900	242	436,200
<b>Total</b>	<b>21,000</b>	<b>465</b>	<b>1,033,500</b>

*Numbers indicate projected amounts per entire state road system.*

### COMPARISON 1995 VS. 2001

One goal of the 2001 litter study was to generate data that could be compared to data generated in a 1995 litter study to quantify the change in statewide litter amounts over time. The 1995 study utilized a linear regression model to estimate litter amounts to the statewide level, while the 2001 study utilized a series of expansion factors for its statewide estimates. Table 4 compares the results of the 1995 and 2001 litter studies.

**TABLE 4:  
UNADJUSTED ANNUAL LITTER ESTIMATES<sup>3</sup>**

LITTER STUDY	ANNUAL LITTER ESTIMATE
1995	3,089
2001	1,034

*Millions of items*

It appears that the 2001 statewide annual litter estimate is approximately 66% lower than the 1995 statewide annual litter estimate. This may lead some to believe that litter in Texas has decreased by this amount from 1995 to 2001. However, directly comparing these two estimates ignores certain important details – the primary one being that the two studies were conducted using two different methodologies.

To facilitate a comparison of litter in Texas between 1995 and 2001, NuStats applied the 2001 statistical methodology to analyze the 1995 litter data. Doing so ensured that differences between the 1995 and 2001 estimates were a result of actual changes in statewide litter amounts versus changes due to the use of different statistical methods.

<sup>3</sup> Table 4 represents the 1995 and 2001 annual litter estimates that were derived using different statistical methodologies.

The decision to analyze the 1995 litter data with the 2001 NuStats statistical methodology was based on the opinion that the 2001 methodology was better suited to produce accurate statewide litter estimates than the methodology used in 1995. The 1995 study found a statistically significant positive correlation between litter accumulation and traffic volume ( $r = .632$ ), as did the 2001 study. The 1995 model did not account for any other variables that might influence litter accumulation. Furthermore, since the correlation coefficient was far from perfect (1 representing a perfect positive correlation coefficient), there is much room for error in the estimate, especially at the state level.<sup>4</sup>

The 2001 NuStats model is based on direct observation that accounts for the influence of multiple variables. Additionally both Table 5 and Figure 2 indicate that the error range associated with the 2001 estimate is smaller than the 1995 error range. This may suggest that the Quality Assurance/Quality Control (QA/QC) implemented in the 2001 survey was more efficient, thus producing more accurate

The results of the adjusted analysis, with confidence interval (CI) estimates, (see Table 5) indicate that the 1995 annual litter estimate decreases by nearly a third when treated with the 2001 methodology.

**TABLE 5:  
ADJUSTED ANNUAL LITTER ESTIMATES <sup>5</sup>**

LITTER STUDY	ANNUAL LITTER ESTIMATES	ANNUAL LITTER ESTIMATE PLUS 90% CI ESTIMATE	ANNUAL LITTER ESTIMATES MINUS 90% CI ESTIMATE
1995	2,148	2,926	1,372
2001	1,034	1,603	464

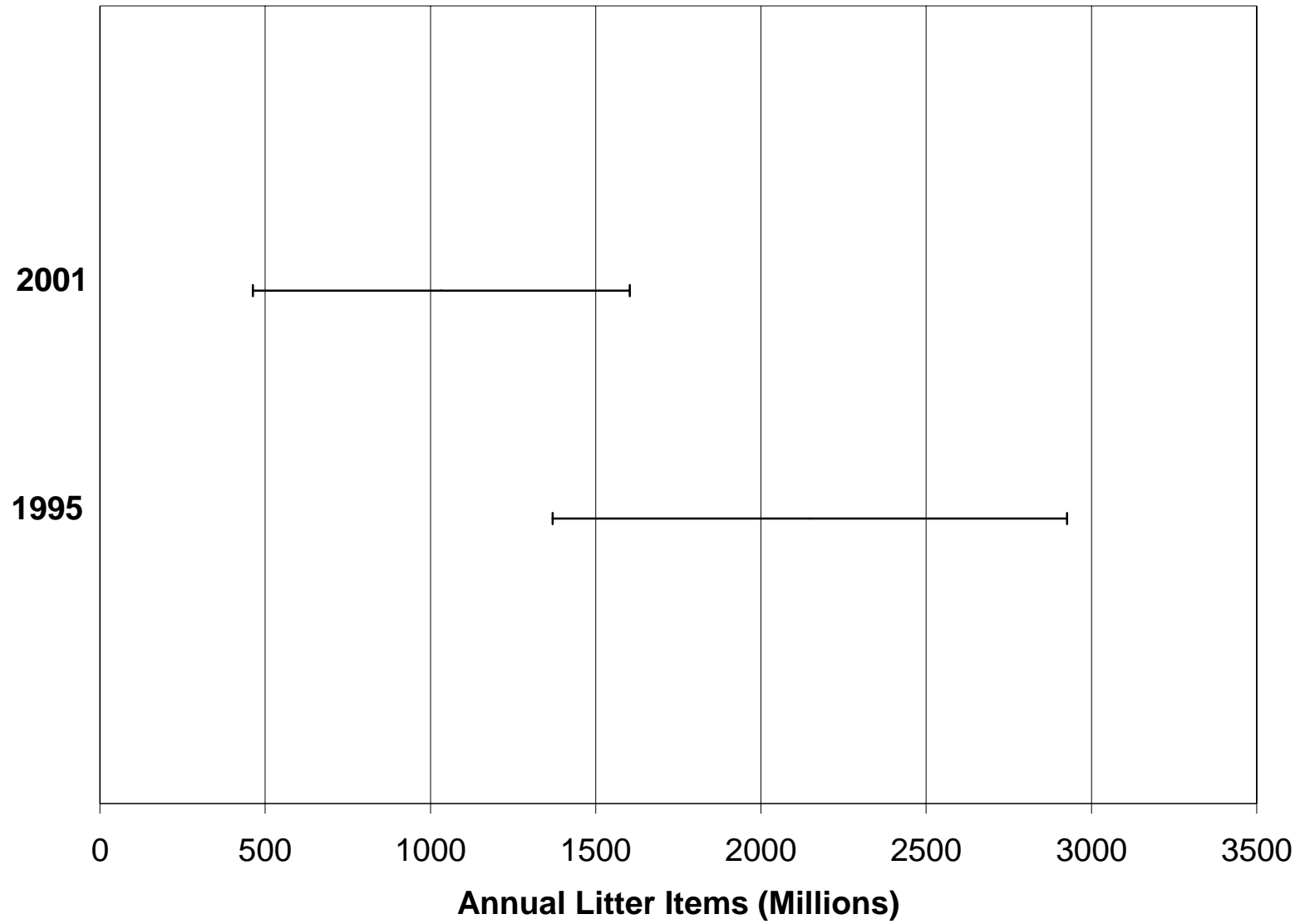
*Millions of items*

The annual litter estimates contained in Table 5 were created using statistical models. These models use empirical data to generate estimates that can be expanded to the state level. As with any statistical model based on a sample, there is a certain degree of error that needs to be incorporated. It is important to consider the range of error associated with both the 1995 and 2001 estimates to better understand the precision of the estimates. Table 5 presents the results of calculating a 90% confidence interval for the annual litter estimates. Thus, one can state with 90% confidence, that the 2001 annual litter estimate falls between 464,000,000 items and 1,603,000,000 items. For a better understanding see Figure 2.

<sup>4</sup> Even a small change in the slope of the regression line can have a major impact on the estimate, which is located at the end of the regression line, far from the sample data points used to estimate the slope.

<sup>5</sup> Table 5 represents the 1995 and 2001 litter estimates that were derived using the same statistical methodology.

**FIGURE 2:  
ANNUAL LITTER ESTIMATE CONFIDENCE INTERVALS**



The sampling errors used to create the confidence intervals (CI) in Figure 2 were calculated with the following equation:

$$CI = z * \sqrt{n} * s$$

where

s = standard deviation of the total litter counts from each site

n = number of sample sites

z = standard error associated with the 90% confidence interval

Because the confidence intervals are, one, very large and, two, overlapping, one cannot conclude that the two estimates are statistically different.<sup>6</sup> This is principally a result of small sample sizes not allowing the detection of modest to meaningful reductions. Based on the annual litter estimates presented in Table 4, the data suggests that there has been a meaningful litter reduction (66%) from 1995 to 2001. However, if one applies the same estimation process to the two datasets, the reduction is only 52%.

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<sup>6</sup> In fact, the sampling errors are underestimated since the estimations do not include the clustering effect which would make the confidence intervals even larger.

Table 6 presents the number of items that are likely to accumulate on one mile of each road type on a monthly basis. When compared on a mile-per-mile basis, the Interstate Highway system contributes the largest amount of litter. The State Highway ranks second contributing some 1,900 litter items per month per mile, followed closely by the US Highway, then the Farm-to-Market road.

**TABLE 6:  
MONTHLY LITTER PROJECTION BY ROAD TYPE**

ROAD TYPE	MONTHLY LITTER PROJECTION
Interstate Highway	2,500
State Highway	1,900
US Highway	1,000
FM Roadways	900

*Number of items per mile of roadway*

### LITTER CHARACTERIZATION

This section provides a snapshot of the composition of the actual litter that was collected during the study. Similar to the previous section, these findings reflect weighted data – e.g., the data has been statistically manipulated to reflect the amount of litter that, based on field data, is likely to accumulate per segment if each segment is statistically expanded to one mile of roadway, encompassing both sides, with an accumulation period of 365 days.

For the 125 sampled segments, the unweighted litter database contains 17,706 items of litter. The weighted litter database contains 2,301,781 items.

Litter was characterized into seven physical composition categories obtained from the EPA Office of Solid Waste. As shown in Table 7, the majority of litter collected during Phase 2 consisted of paper and paperboard (49%). This was followed by plastic (30%) and metal (14%). These three categories comprised 93% of all litter collected. The remaining 7% was comprised of glass (3%), other (2%), textiles (1%), rubber/leather (<1%) and wood (<1%).

**TABLE 7:  
LITTER BY PHYSICAL COMPOSITION**

PHYSICAL COMPOSITION	NUMBER OF ITEMS	PERCENT OF TOTAL
Paper and Paperboard	530,000	49%
Plastic	326,000	30%
Metals	154,000	14%
Glass	29,000	3%
Other	19,000	2%
Textiles	13,000	1%
Rubber/Leather	3,000	<1%
Wood	2,000	<1%
<b>Total</b>	<b>1,076,000</b>	<b>100%</b>

*Only Phase 2 data utilized for composition analysis.*

According to a 1999 Total Waste Generation analysis performed by the US EPA, the following list identifies the percentage by which different materials contribute to the municipal solid waste stream:

1. Paper (38%)
2. Yard Waste (12%)
3. Food Waste (11%)
4. Plastics (11%)
5. Metals (8%)
6. Rubber, Leather, and Textiles (7%)
7. Glass (6%)
8. Wood (5%)
9. Other (2%)

With the exclusion of the Yard Waste and Food Waste categories, which were not collected during the Visible Litter Study, the rank order identified in the EPA study and the NuStats study are nearly identical.

A 2001 Florida Litter Study reported similar results, with paper, plastic, metal, and glass ranking second, third, fourth, and fifth respectively. The number one litter composition was a “mixed” classification, consisting of several litter compositions which was not used in the Visible Litter Study.

Litter was characterized into ten Use Categories. Twenty percent of all litter items within the expanded database come from the food Litter Use (see Table 8). This category is closely followed by household/personal and tobacco (19% each). Non-alcoholic beverages comprise 16% of all litter items followed by alcoholic beverages (8%), construction/industrial (8%), printed (6%), other (6%), automotive (1%), and agriculture garden (<1%).

**TABLE 8:  
LITTER BY USE**

USE	NUMBER OF ITEMS	PERCENTAGE OF TOTAL
Food	470,000	20%
Household/Personal	444,000	19%
Tobacco	432,000	19%
Non Alcoholic Beverage	357,000	16%
Alcoholic Beverage	189,000	8%
Construction/Industrial	179,000	8%
Printed	148,000	6%
Other	41,000	2%
Automotive	29,000	1%
Agriculture/Garden	13,000	<1%
<b>Total</b>	<b>2,302,000</b>	<b>100%</b>

Table 9 provides an overview of the most common items found within each Litter Use. A more exhaustive list appears in Attachment 5.

**TABLE 9:  
MOST COMMON ITEMS WITHIN LITTER USE CATEGORIES**

USE	ITEM NAME	PERCENT WITHIN EACH CATEGORY
Food	Food Wrap	41%
	Fast Food Napkin	13%
	Food Bag	11%
	Beverage Cup	8%
	Condiment Pack	6%
Household/Personal	Cardboard	63%
	Tissue/Towel	12%
	Paper Pieces	5%
Tobacco	Cigarette Butt	74%
	Cigarette Pack	23%
Non-Alcoholic Beverage	Beverage Cup	27%
	Soda Can	26%
	Soda Bottle	12%
	Cup Lid	11%
	Bottle	9%
	Drinking Straw	8%
	Alcoholic Beverage	Beer Can
Beer Bottle		17%
Construction/Industrial	Plastic Pieces	24%
	Insulation	22%
	Corrugated Box	9%
	Shop Rag	5%
	Packing Material	3%
	Measuring Tape	3%
	Miscellaneous	2%
Printed	Lottery Ticket	25%
	Newspaper	13%
	Paper Pieces	12%
	Receipt	8%
	Flier/Catalog	7%
	Label	6%
Other	Paper Pieces	72%
	Plastic Pieces	19%
	Unknown	8%
Automotive	Shop Rag	21%
	Tire Parts	13%
	Oil Container	12%
	Seat Belt	9%
Agriculture/Garden	Shotgun Shell	47%
	Rake	23%
	Buffer Pad	11%

The litter field teams were able to identify >99% of all litter items collected. Figure 2 contains a breakdown of all identifiable litter items collected, regardless of litter use classification. Of all identifiable items collected, the most common items were cigarette butts (14%), cardboard pieces (12%), food wrap (9%), beer cans (6%), beverage cups (6%) and tissues/towels (5%). The items in Figure 3 represent 82% of all identifiable litter.

**FIGURE 3:  
COMMON LITTER ITEMS**

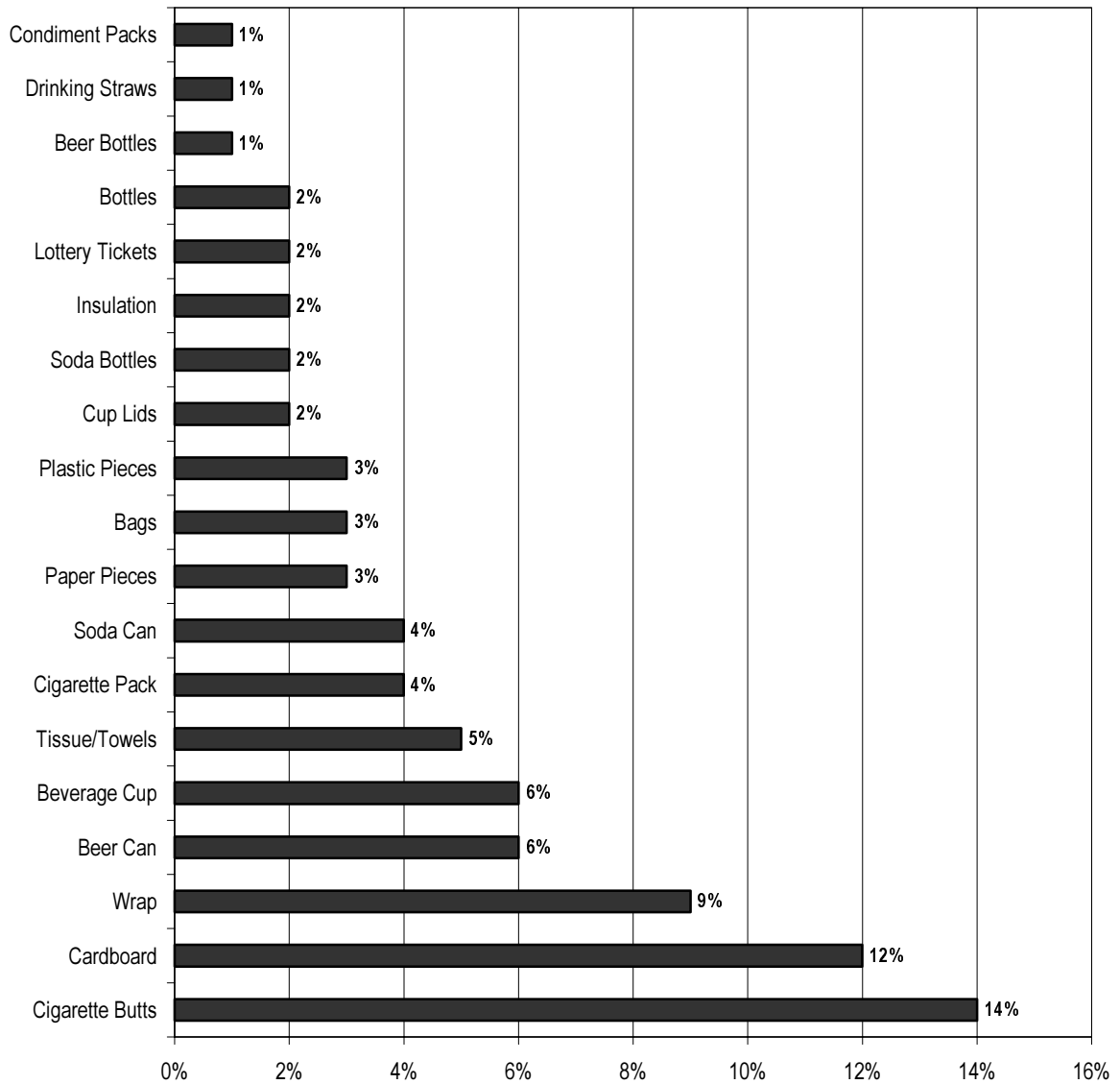




Table 10 contains a summary of the top classes of litter and the top brand names within that category identifiable by brand.

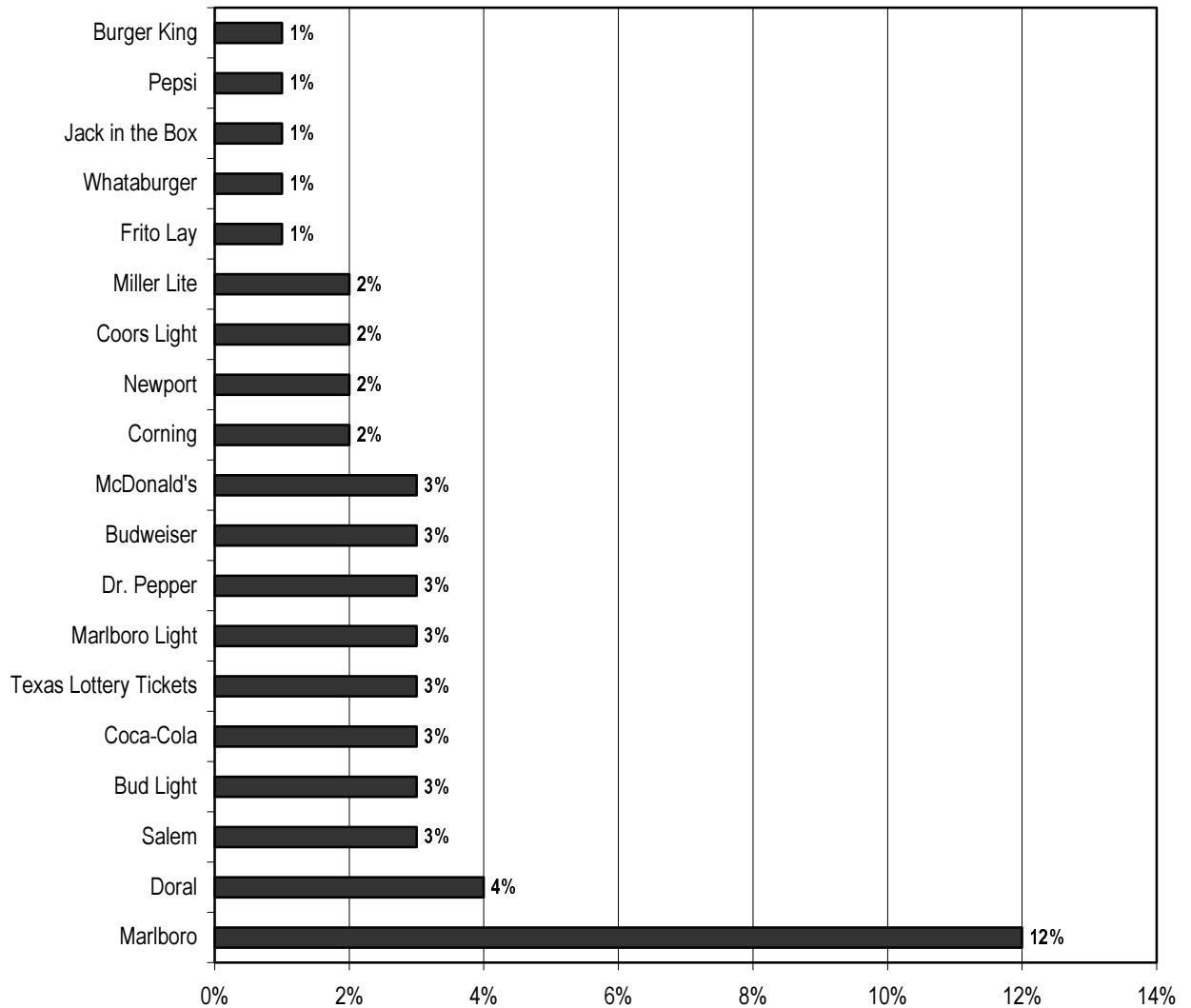
**TABLE 10:  
TOP BRAND WITHIN EACH LITTER USE CATEGORY**

USE	BRANDS	PERCENT WITHIN EACH LITTER USE
Food	Unknown	33%
	McDonald's	7%
	Frito Lay	3%
	Whataburger	3%
	Jack in the Box	3%
	Burger King	3%
	Wrigley's	3%
Household/Personal	Unknown	85%
Tobacco	Marlboro	37%
	Doral	12%
	Salem	10%
	Marlboro Light	8%
	Unknown	8%
	Newport	6%
Non Alcoholic Beverage	Unknown	48%
	Coca-Cola	12%
	Dr. Pepper	10%
	Pepsi	4%
	Sprite	2%
	Mountain Dew	2%
Alcoholic Beverage	Bud Light	23%
	Budweiser	18%
	Coors Light	12%
	Miller Lite	10%
	Natural Lite	6%
	Keystone	5%
Construction Industrial	Unknown	78%
	Corning	16%
Printed	Unknown	40%
	Texas Lottery	27%
	Waco Tribune	7%
Other	Unknown	99%
Automotive	Unknown	66%
	Car Fresh	4%
	Quaker State	4%
	Chevron	3%
Agriculture/Garden	Winchester	47%
	Unknown	38%

<sup>7</sup> Lottery Tickets

Field teams identified brand names for 56% percent of all litter items in the database. The most practical and perhaps useful way to report brand names is according to litter use. Attachment 4 provides a detailed list of the items first sorted by brand name and then according to litter use. Figure 4 depicts the most commonly found identifiable brand names.

**FIGURE 4:  
COMMON LITTER BRANDS**



## CORRELATION BETWEEN LITTER ACCUMULATION AND OTHER VARIABLES

This section presents the correlation analyses between litter accumulation at each study segment and variables such as Annual Average Daily Traffic (AADT) and proximity to potential litter sources. Correlation analysis is used to measure the degree of linear relationship between two variables. In a perfect linear relationship, every unit increase or decrease in one variable (X) is followed by an identical unit increase or decrease in the other variable (Y). The resultant statistic, the *coefficient of simple correlation* ( $r$ ), indicates how much variability in one variable can explain the variability in the other. The possible values for the coefficient of simple correlation range from +1, a perfect positive linear relationship, to -1, a perfect negative linear relationship. The *p-value* associated with each *coefficient of simple correlation* indicates the precision of the statistic.

As a result of modifications to the Phase I methodology, which provided more accurate Phase II AADT counts, only the data from the 84 Phase II sites are utilized for the correlation analyses.

### TRAFFIC VOLUME

Previous litter studies indicate that litter accumulation is directly related to the number of vehicle miles traveled. This is a logical assumption that implies that an increased number of cars traveling more miles means more litter accumulates.

NuStats designed the Visible Litter Study so this relationship could be quantified and compared to previous studies performed in the field of litter research. Correlation coefficients were calculated utilizing the density of litter on each site (in items per square foot) and the AADT counts as variables. The litter counts used to calculate the litter density were un-weighted and the AADT counts were obtained from 1999 District Highway Traffic Maps produced and distributed by TxDOT. The non-parametric Spearman's rho technique was utilized for all correlations analyses, as the data was not normally distributed.

The resulting correlation analysis yielded a modest but significant correlation ( $r = .467$ ,  $p = .01$ ) with higher litter densities associated with higher traffic volumes. This figure indicates there is a statistically significant positive linear relationship between traffic volume (X) and the amount of litter found on a roadway (Y). The data in this study indicates that almost half (46.7%) of the variability in litter densities found on the sample sites can be explained by the variability in site specific AADT counts. The associated *p-value* indicates that this statement can be made with 99% confidence ( $1-.01 = .99$ ).

## PROXIMITY TO POTENTIAL LITTER SOURCES

Construction sites, convenience stores, fast food restaurants, gas stations, liquor stores, parks, rest stops, schools, shopping malls, and tourist shops are establishments that represent potential litter sources. Correlation coefficients were calculated utilizing the density of litter on each site and the number of potential litter sources within three miles of the sample segment as variables. As Table 11 indicates, modest but significant correlations exist between litter density and the number of fast food restaurants ( $r = .218$ ,  $p = .05$ ), liquor stores ( $r = .248$ ,  $p = .05$ ), parks ( $r = .198$ ,  $p = .10$ ), rest stops ( $r = .188$ ,  $p = .10$ ), and shopping malls ( $r = .182$ ,  $p = .10$ ).

**TABLE 11:  
CORRELATION COEFFICIENTS – POTENTIAL LITTER SOURCES**

POTENTIAL LITTER SOURCE	CORRELATION COEFFICIENT
Construction Site	-.120
Convenience Store	.153
Fast Food Restaurant	.218*
Gas Station	.045
Liquor Store	.248*
Park	.198**
Other	-.121
Rest Stop	.188**
School	-.096
Shopping Mall	.182**
Tourist Shop	.014

\* - Indicates significance at .05 level

\*\* - Indicates significance at .10 level

## LITTER PREVENTION

A portion of the sample sites was selected in an effort to gauge the effectiveness of current TxDOT litter prevention efforts. The density of litter items from sites with high litter prevention efforts was compared to the density of litter items from sites with low litter prevention efforts. Both road type and AADT were held constant to ensure that any difference in litter densities were due to the presence or absence of high or low litter prevention efforts, not differences in traffic volume.

The results of this analysis did not prove that litter densities were lower on sites characterized by high litter prevention.

One possible explanation for these results may be a function of how the different types of litter prevention were defined. A site is defined as a high litter prevention site only if the segment is within one mile of a DMWT billboard, litter fine road sign or part of an Adopt-a-Highway program, and located within a media market that exhibits more than \$50,000 of DMWT media expenditure. Media markets that satisfy the financial criteria include Austin, Dallas/Fort Worth, El Paso, Houston, Rio Grande Valley, and San Antonio. These markets are comprised of the most heavily urbanized counties in Texas and exhibit higher populations, traffic volumes, and other similar variables that are known or suspected to increase litter amounts than those counties that do not meet the high litter intervention criteria. It is logical to assume that sample sites located in these regions of Texas would exhibit more litter than their less urbanized counterparts.

Future litter studies that seek to analyze the effectiveness of litter prevention efforts must develop a methodology that accounts not only for the effects of increased populations and traffic volume, but other urban variables that have the ability to affect litter deposition.



# CONCLUSIONS AND RECOMMENDATIONS

This section summarizes the key points and findings of the Visible Litter Study. While previous litter studies have been conducted in Texas, NuStats cautions against comparing some statistics between litter reports. This is because there are differences in statistical methodology, data collection, and litter classification that may lead to false assumptions regarding the changes in statewide litter quantity over time.

- Slightly more than 1 billion items accumulate annually on the state-maintained highway system in Texas. Of that number, approximately 42% accumulate on Farm-to-Market roads, 35% accumulate on State Highways, 14% accumulate on US Highways, and 10% accumulate on Interstate Highways.
- Based on adjusted annual litter estimates presented in Table 5, the data suggests that there has been a meaningful litter reduction (52%) from 1995 to 2001. Since the confidence intervals overlap (see Figure 2), one cannot conclude that the two estimates are statistically different.
- When each road type is standardized for time and road length, on a mile per mile basis, the Interstate Highway is the “most littered” road type with some 2,500 litter items accumulating per month per mile. This is followed by the State Highway (1,900 items), the US Highway (1,000 items), and finally the Farm-to-Market road (900 items).
- The majority of litter found during Phase II consisted of paper and paperboard (49%). This was followed by plastic (30%) and metal (14%). These three categories comprised 93% of all litter collected. The remaining 7% was comprised of glass (3%), other (2%), textiles (1%), rubber/leather (<1%) and wood (<1%).
- The most common litter use was food related litter (20%). This was closely followed by household/personal (19%) and tobacco (19%). Non-alcoholic beverage comprises 16% of all litter items followed by alcoholic beverage (8%), construction/industrial (8%), printed (6%), other (6%), automotive (1%), and agriculture/garden (<1%). See Table 12 for further detail.

**TABLE 12:  
LITTER USE RANK COMPARISONS**

PAST LITTER SURVEY USE RANK	CURRENT LITTER SURVEY USE RANK
Tobacco Related (51%)	Food (20%)
Other (15%)	Household/Personal (19%)
Food (11%)	Tobacco (19%)
Non-Alcoholic Beverage (8%)	Non Alcoholic Beverage (16%)
Printed (5%)	Alcoholic Beverage (8%)
Household Personal (4%)	Construction/Industrial (8%)
Alcoholic Beverage (3%)	Printed (6%)
Automotive (2%)	Other (6%)
Construction/Industrial (1%)	Automotive (1%)
Agriculture Garden (<1%)	Agriculture/Garden (<1%)

- The most common identifiable litter items were cigarette butts (14%), cardboard pieces (12%), food wrap (9%), beer cans (6%), beverage cups (6%) and tissues/towels (5%). See Table 13 for further detail.

**TABLE 13:  
LITTER ITEM DESCRIPTION RANK COMPARISONS**

PAST LITTER SURVEY USE RANK	CURRENT LITTER SURVEY USE RANK
Cigarette Butt (48%)	Cigarette Butts (14%)
Snack Wrap (5%)	Cardboard (12%)
Miscellaneous (4%)	Wrap (9%)
Cup (4%)	Beer Cans (6%)
Bag (3%)	Beverage Cups (6%)
Miscellaneous Paper (3%)	Tissue/Towel (5%)
Cigarette Pack (2%)	Cigarette Pack (4%)
Wrap (2%)	Soda Can (4%)
Tissue/Towel (2%)	Paper Pieces (3%)

- The most commonly found identifiable litter brands were Marlboro (12%), Doral (4%), Salem (3%), Bud Light (3%), Coca-Cola Classic (3%), Texas Lottery Tickets (3%), Marlboro Light (3%), Dr. Pepper (3%), Budweiser (3%), and McDonald's (3%). See Table 14 for further detail.

**TABLE 14:  
LITTER BRAND NAME RANK COMPARISONS**

PAST LITTER SURVEY USE RANK	CURRENT LITTER SURVEY USE RANK
Marlboro (36%)	Marlboro (12%)
Salem (4%)	Doral (4%)
Winston (4%)	Salem (3%)
GPC (3%)	Bud Light (3%)
Basic (3%)	Coca Cola (3%)
Benson and Hedges (3%)	Texas Lottery Tickets (3%)
Budweiser (2%)	Marlboro Light (3%)
KOOL (2%)	Dr. Pepper (3%)
McDonald's (2%)	Budweiser (3%)
Frito Lay (2%)	McDonald's (3%)

- Correlation analyses revealed modest, yet significant, correlation between the density of litter found at each site and AADT ( $r = .467$ ,  $p = .01$ ).
- Correlation analyses revealed modest, yet significant, correlation between the density of litter found at each site and potential litter sources such as fast food restaurants ( $r = .218$ ,  $p = .05$ ), liquor stores ( $r = .248$ ,  $p = .05$ ), parks ( $r = .198$ ,  $p = .10$ ), rest stops ( $r = .188$ ,  $p = .10$ ), and shopping malls ( $r = .182$ ,  $p = .10$ ).

## RECOMMENDATIONS

NuStats recommends that this survey be conducted for two to three consecutive years to establish a baseline. This timeframe will facilitate further refinement of the litter study methodology. Once this baseline is established, NuStats recommends that the project be conducted biennially.

NuStats also recommends future litter surveys utilize a greater number of smaller survey sites for data collection. While this increase will likely increase the time necessary for data collection, this revised sampling plan will facilitate more precise statistical results indicative of a greater geographic area.

An increase in the number of sample sites will also reduce the size of the confidence intervals associated with the annual litter estimates (see Figure 2). Smaller confidence intervals will greatly improve the ability to cite statistically significant changes in statewide litter amounts over time.

Additional recommendations include:

- Refinement of litter classification scheme so that all litter uses are mutually exclusive.
- Utilization of “on-site” Automated Traffic Recorders (ATRs) for collection of traffic volume data
- Coordination with TxDOT to facilitate the mowing of all sites prior to field data collection
- Conducting additional training regarding the collection of site specific data, and the identification and categorization of litter data

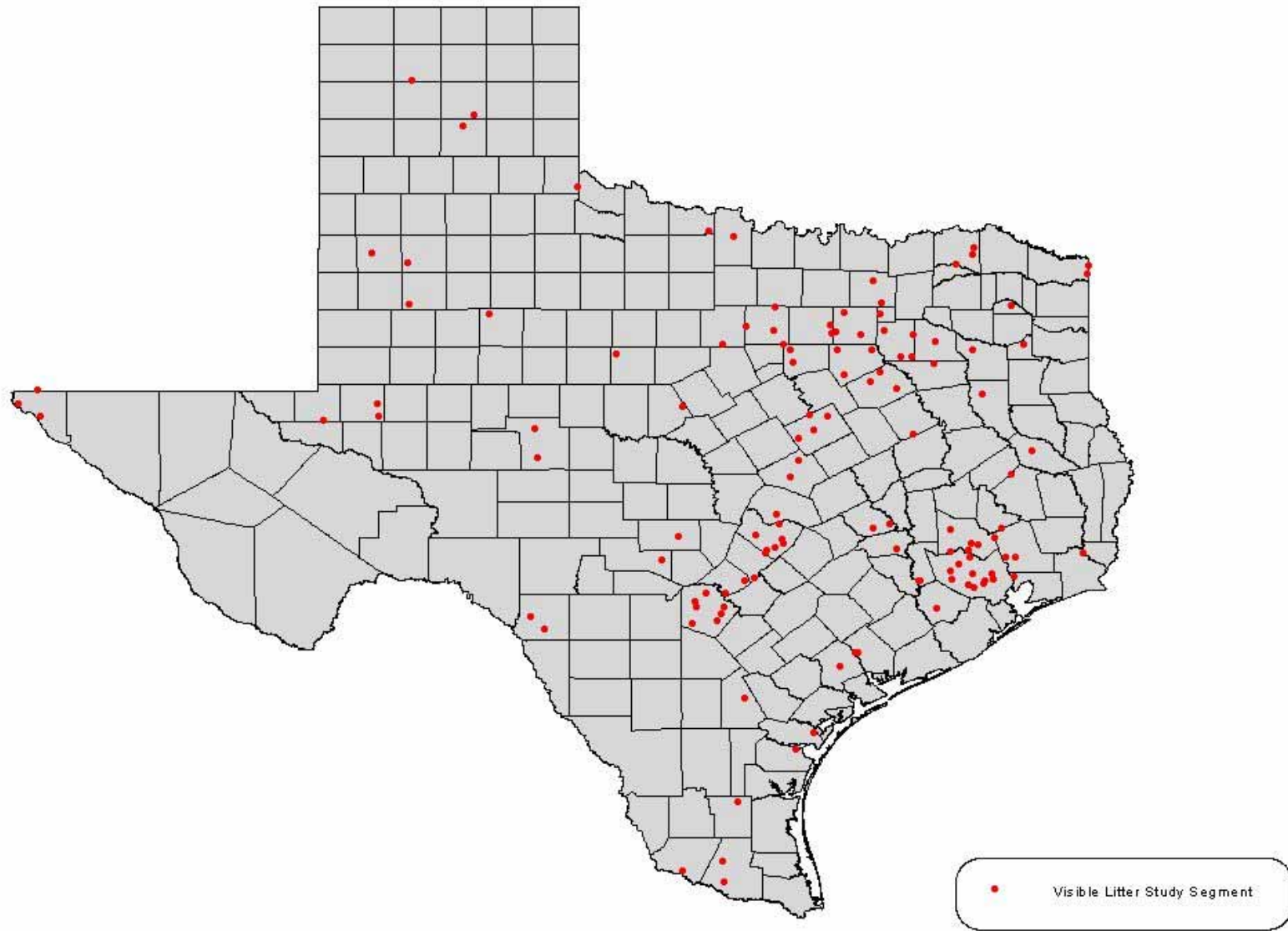




# ATTACHMENT 1: MAP

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# Distribution of Visible Litter Study Segments





# ATTACHMENT 2: SELECTION MATRIX

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## SELECTION MATRIX

USDVM	SHDVM	FMDVM	# ISH	# USH	# SH	# FM	TOTAL
13,670,314.00	15,624,002.00	9,189,714	8	4	6	3	21
10,241,582.00	12,500,196.00	4,488,650	8	3	4	1	16
4,823,821.00	10,919,461.00	4,466,503	4	1	3	1	9
4,995,728.00	6,917,580.00	3,700,915	5	2	2	2	11
6,078,118.00	6,999,345.00	5,345,487	4	1	2	2	9
4,069,054.00	5,518,703.00	2,816,253	1	1	2	1	5
2,592,223.00	3,733,108.00	2,668,550	2	1	2	1	6
6,736,852.00	3,129,576.00	3,913,862	0	2	1	1	4
4,021,715.00	3,611,207.00	2,467,653	1	1	1	1	4
3,719,292.00	4,338,818.00	1,729,073	1	1	1	0	3
2,318,314.00	3,468,790.00	2,490,128	1	1	1	1	4
3,793,983.00	2,845,939.00	1,726,886	1	1	1	0	3
1,708,880.00	2,191,821.00	1,026,707	1	1	0	1	3
3,543,628.00	1,714,502.00	1,637,656	1	1	1	1	3
3,096,922.00	2,536,627.00	1,775,807	0	1	1	1	3
4,053,693.00	1,864,764.00	1,631,435	0	1	1	1	3
2,752,289.00	1,521,571.00	870,736	1	1	1	0	3
4,104,983.00	2,442,616.00	1,522,667	0	2	0	1	3
920,507.00	2,394,207.00	764,789	1	1	1	0	3
1,890,387.00	1,222,044.00	903,757	1	1	0	0	2
3,110,661.00	993,900.00	982,639	0	2	0	0	2
2,098,441.00	916,593.00	629,489	0	1	1	0	2
2,027,227.00	711,452.00	607,733	0	2	0	0	2
1,826,586.00	748,644.00	674,455	0	1	0	0	1
1,422,617.00	308,391.00	229,543	0	1	0	0	1
<b>99,617,817.00</b>	<b>99,173,857.00</b>	<b>58,261,087</b>	<b>41</b>	<b>35</b>	<b>32</b>	<b>19</b>	<b>126</b>



# ATTACHMENT 3: FIELD MANUAL

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# **VISIBLE LITTER STUDY**

*FIELD MANUAL*



# CONTENTS

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# LIST OF ATTACHMENTS

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- Attachment 1 Master Site List
- Attachment 2 Segment Data Sheet
- Attachment 3 Equipment Check List
- Attachment 4 Logistics Plan
- Attachment 5 Segment Criteria Selection Sheet
- Attachment 6 Site Drawing
- Attachment 7 Potential Litter Sources
- Attachment 8 Inventory Hard Copy
- Attachment 9 Item Descriptions
- Attachment 10 Brand Names





## OBJECTIVES

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- To produce a reliable statewide volumetric measurement of roadway litter to include the number of items, type of item, weight of item, volume of item, and, if possible, brand name of item
- To compare the current volumes of visible litter on Texas roadways to the levels observed in 1994 when a similar study was performed
- To provide an analysis of roadside litter accumulation rates that will allow us to model roadside litter accumulation rates across the State of Texas
- To produce data that better allows us to identify that portion of the general population that litters



# INTRODUCTION

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This study will be conducted in two phases. Phase I will target 41 different roadway segments. Phase II will target an additional 85 segments, for a total of 126 sample segments in the visible litter study.

This study is designed to measure how fast litter accumulates and how much litter accumulates on different types of roadway segments. A roadway segment is one full half of a road, approximately 500 to 1,500 feet in length.

In order to accurately measure these rates of litter accumulation, it is necessary that the roads be cleaned first. Your first major task in this project involves traveling to your list of segments, identified in this Field Manual, and collect all the litter found on these segments. The litter you collect during the first collection will not be categorized or measured. Rather, it will be discarded. You will also complete the Segment Data Sheet (included in this packet) at this time.

After all your segments have been cleaned the first time, litter will be allowed to accumulate on these segments for a specific time period. After the time has passed, you will travel to your segments again and pick up all the litter that has accumulated on each of your assigned segments. It is very important that you label each bag of litter with the segment number from which the litter was collected (e.g., you collect three bags of litter from segment 10. Label each of the three bags with the number 10). After each segment has been collected and the bags labeled, you will take the litter back to your facility and separate the litter collected for each individual segment separately. The litter from each segment is to be separated into different categories of litter according to the instructions found in this Field Manual.



# METHOD

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## PRE-PURGE

- 1) Check the Master Site List (Attachment 1) and make sure that you have a corresponding Segment Data Sheet (Attachment 2) for each site. Make sure that there are also several blank Segment Data Sheets in case one is lost or incorrectly completed.
- 2) Check to make sure that you have all the necessary equipment to successfully complete the litter collection. You should use the Equipment Checklist (Attachment 3) to verify this. Please make sure that any equipment lent to you by NuStats is returned at the end of this project.

## CONDUCTING THE PURGE

- 1) The logistics plan (Attachment 4) and the Master Site List have been sent to the TxDOT district office where you will be conducting your survey. Some of them have requested to meet you at the sample location. Look at the Master List in the Notes column. If the section contact has requested to meet you at the site, there will be a note indicative of this in this column. Approximately one hour before you arrive at the site, call the section contact and arrange to meet them at the site, if they so desire.
- 2) If, for any reason, you are unable to meet your schedule, or feel that you will be unable to meet your schedule, telephone the project manager in Austin. This should be done immediately.
- 3) Drive to the designated roadway.
- 4) Select the segment according to the Segment Criteria Selection Sheet (Attachment 5). The TxDOT maintenance sections know that these sections are not to have any maintenance activities (mowing or litter collection) performed on it during this time. Adopt-a-Highway sponsor groups have been notified of your activities.

**Note:** Segments located on roads that only have one median on either side of the road will still be 1,500' in length. The width of these segments will be such that the entire width of the median is collected. Segments located on roads that have multiple lanes of highway (these roads typically are characterized as having axis roads or a center median) typically have more than one median for litter accumulation. Therefore, segments located on these roadways will only be 500 feet in length; however, the width will be such that all medians to the full half of the roadway will be collected of litter. In this situation the roadway will be split in half with an imaginary line running down the middle of the center median marking this delineation.

- 5) Once the segment has been selected, measure it and mark the end points by driving flagged stakes into the ground. Try and designate the starting point so that it coincides with a permanent fixture that is already in place at the site. Examples of such permanent fixtures include guardrails, bridges, buildings or road signs (such as the DMWT or litter fine signs that are present at the high intervention sites).

If the segment encompasses more than one median, make sure that the beginning and end points are designated within each median (see Attachment 6 for greater detail).

**Note:** It is very important that the beginning and end points of the segment are highly visible to the TxDOT personnel who will be looking for the site. Make sure that the stakes used to mark the segment are at least three feet in length and flagged in a unique manner (in case there are other flagged stakes in the roadway).

- 6) Fill out the Segment Data Sheet at this time. Be sure to draw the roadway, and label the site locations for future reference.

**Note:** It is very important that the information on the Segment Data Sheet be accurately recorded, as this data will be used in the subsequent statistical analysis. This data should be sent to Nustats on an ongoing basis just as the litter inventory data is sent.

- 7) When the end points of the segment have been determined, collect all litter in the segment.
- 8) Paper less than two square inches in overall dimensions will not be collected for this survey. Cigarette butts and non-paper items (beer bottle caps, plastic candy wrappers, etc.) of this dimension or smaller will be collected.
- 9) Large items that are too heavy to safely collect should not be collected. Note the approximate location on the Segment Data Sheet.
- 10) When all litter has been collected, determine the land use next to the segment and note it on the Segment Data Sheet.
- 11) Travel the roadway for three miles in both directions of your segment. Take note of the type and number of any litter source within this distance. A list of possible sources can be found on the page within your Field Manual titled Potential Litter Sources (Attachment 7).

**Note:** Once the data has been entered regarding potential litter sources, this data should be faxed to Nustats a supplement to the segment data sheet.

- 12) Take note of major intersections that occur within your segment. Include these in the segment drawing you made on the Segment Data Sheet.
- 13) The litter that is collected during the initial purge will not be categorized. Rather, this litter will be bagged and left on the roadside for TxDOT to pick up at a later date.

## **POST PURGE**

- 1) After the litter on your segments has been collected for the day, take the time to write down any notes pertinent to the inventory. Make sure that all necessary tasks have been performed. Use the Sampling Checklist to verify that this has been done.
- 2) Call the project manager each day after litter has been collected from your segments. If you get a recording, leave your name and number.
- 3) Should you need something that is urgent and requires immediate attention, feel free to call the alternative numbers that have been provided for you in the Field Manual.

## **LITTER ACCUMULATION PERIOD**

- 1) Your segments will accumulate litter for a specific period of time. The appropriate individuals have been contacted so that during this period, no litter collections will take place on the research segments.

- 2) Make sure to keep your Field Manual in a safe place during the litter accumulation period. You will be using it again during the second litter collection.

## **PRE-INVENTORY**

- 1) Retrieve your Field Manual and familiarize yourself once again with your segment locations.
- 2) Check to make sure that you have all the equipment you will need to conduct the second litter collection. Once again, you should use the Equipment Checklist to verify that all the equipment is on-hand. If you need equipment, contact the project manager and request it at least one week prior to the second collection.

## **CONDUCTING THE INVENTORY**

- 1) The appropriate officials in the TxDOT districts in which your collection is being conducted have already been notified.
- 2) If, for any reason, you feel that you will be unable to meet your schedule, telephone the section contact and the project manager in Austin. This should be done immediately.
- 3) Collect all of your necessary equipment and drive to the segment location.
- 4) Once you arrive at the segment location, locate the beginning and end-points of the segment. If you documented your segment well on the Segment Data Sheet and/or used stakes to mark the endpoints, you should be able to locate your segment quickly and easily.
- 5) When the end-points of your segment have been located, collect all the litter that has accumulated within your designated segment.
- 6) Paper less than two square inches in overall size will not be collected in the second collection. Cigarette butts and non-paper items of this size will be collected.
- 7) Broken windshield glass is not to be collected.
- 8) Large items that have accumulated on your segment that are too heavy to safely collect should not be collected. Note the approximate location on the Segment Data Sheet just as you did during the first collection.
- 9) Once all the litter has been collected, label the bags of litter with the segment number on which the litter was collected, load up and proceed to the next sample segment.
- 10) Once you have collected litter on an appropriate number of sample segments, the litter will be inventoried (which includes categorization and measurement). The TxDOT district offices have reserved some workspace in their district maintenance facilities where the litter inventory will occur.

Upon arriving at the TxDOT district facility (whose location will be determined at a later date) simply identify yourself as a Nustats Visible Litter Study contractor and you will be given instructions as to where the reserved workspace is located. Once you have located this space, begin categorizing the litter.

## LITTER SORTING PROCEDURE

- 1) Locate all bags of litter that are numbered with the same segment number. The bags that are labeled with the same segment number represent all the litter that came from each unique segment. The first thing we want to do with this litter is record the total weight and total volume of litter that comes from each site. You should use the scale and litter barrels provided to you for this.
- 2) To measure the weight of the litter from one site, simply place the empty litter can or bucket on the scale and record its weight. Now, place the litter into the can or bucket and record the weight of the can or bucket and litter. Subtract the weight of the empty litter can or bucket from the weight of the full litter can or bucket, and you will have the weight of the litter in pounds. If there is more than one full can of litter for each litter site, perform this procedure for the remaining litter from that site and add the numbers to calculate the total weight of each site.
- 3) To measure the volume of litter from each site, simply place the litter into the empty litter can or bucket. Notice that both the can and bucket have tic marks on the inside. The tic marks on the litter can represent increments of 5-gallons, starting at the bottom and progressing to the top. The litter can holds 20-gallons when it is full. The tic marks on the litter bucket represent increments of 1 gallon, starting at the bottom and progressing to the top. The litter bucket holds 5-gallons of litter when it is full.  
  
If there is more than one full can of litter for each site, perform this procedure for the remaining litter for that site and add the numbers to calculate the total weight for each site. The weight of each pile of litter is to be recorded in gallons.
- 4) Once you have recorded this measurement, separate all the litter from one segment into unique "LITTER USE" piles. Litter can be categorized into 10 separate USE categories for this survey. Each USE, the corresponding code for that USE, and some common examples can be found in Table 1 below.

**TABLE 1: LITTER USES**

USE	CODE	EXAMPLES
Agriculture/Garden	1	Plant, planter box, rake, hoe, fertilizer bag, plant label, feed sack, etc.
Alcoholic Beverage	2	Beer bottle, beer can, beer carton, liquor bottle, bottle cap, wine cap, beer cup, beer or liquor label, pop tops, etc.
Automotive	3	Keys, license plates, mud flaps, oil filter, oil rags, car parts, antennas, tie downs, tires, rims, tire weights, wiper blades, etc.
Construction/Industrial	4	Caulk gun, fencing, fiberglass, signage, gloves, paint cans, insulation, lumber, nails, PVC, road markers, cones, tools, siding, wire, rope, twine, fencing, etc
Food	5	Dishes, food wrap, ice bags, utensils, menus, napkins, pizza boxes, pop sickle sticks, etc.
Household/Personal	6	Photographs, pill bottles, pottery, ribbon, rubber bands, gun shell casings, clothes, string, sunglasses, hygiene products, condoms, tissue, trash can and lids, holiday paraphernalia, etc.
Non Alcoholic Beverage	7	Anything beverage related that is not liquor beer, or wine – caps, rings, boxes, cups, bottles, cans, advertising, straws, water jug
Other	8	Anything that doesn't fit into another category.
Printed	9	Receipts, newspapers, fliers, magazines, pamphlets, office documents, school papers, phone books, mail, tickets, Xerox copies, etc.
Tobacco	10	Cigarettes, butts, cartons, boxes, cigar paraphernalia, snuff cans, tobacco pouches, foil, lighters, papers, etc

This table does not contain all items that you will encounter during the litter collection. Additionally, you are certain to encounter items that could be classified in more than one category. You will have to use your own judgment on how these items are to be classified.

- 5) Once the litter has been separated into different USE piles, each USE pile will be categorized into “COMPOSITION” piles. Litter can be categorized into eight different composition piles. Each COMPOSITION, the corresponding code for that composition, and some common examples of items found in each composition can be found in Table 2 below.

**TABLE 2: LITTER COMPOSITION**

LITTER COMPOSITION	CODE	EXAMPLES
Paper and Paperboard	A	Cigarette butts, newspaper, books, magazines, office papers, commercial printing, receipts, mail, tissue paper, paper towels, paper plates and cups, paper packaging material, corrugated boxes, milk cartons, bags, sacks, wrapping paper.
Glass	B	Beer and soft drink bottles, wine and liquor bottles, food bottles and jars
Metals	C	Beer and soft drink cans, food cans, foil wrap, rod iron, nails, wire, hardware
Plastics	D	Plastic cups and plates, soft drink bottles, milk and water bottles, trash bags, plastic grocery bags, Ziploc bags, fast food containers
Rubber and Leather	E	Shoes, leather apparel, tires
Textiles	F	Clothing, rags, towels, carpet, furniture cover, bed sheets
Wood	G	Furniture, wood packaging, pallets, crates
Other	H	Other

This table does not contain all items that you will encounter during the litter collection. Additionally, you are certain to encounter items that could be classified in more than one category. You will have to use your own judgment on how these items are to be classified.

- 6) At this point you should have numerous piles of litter. Each pile will should represent a unique combination of LITTER USE and COMPOSITION.

For example you might have three piles for the Alcoholic Beverage USE: one representing glass (beer and liquor bottles), one representing metal (beer cans and bottle caps), and one representing paper (beer cartons, etc.).

- 7) Your next task is to classify each individual item of litter by assigning the piece of litter an “ITEM DESCRIPTION.” Attachment 9 titled ITEM DESCRIPTIONS identifies some common items that might be found during your litter inventory. The corresponding code for that item is also identified in the list.

Concentrate on one particular pile and begin to create individual piles for each “ITEM DESCRIPTION.” When you have completed this task for one pile, you will have several smaller piles that represent all the unique items that are contained in that particular pile.

It is quite possible that you will find some items in your litter that are not present on the list. When you do find such an item, simply assign this item the code for other (997) and write the actual Item Description on page 4 of the Inventory Hard Copy in the column titled Other Item Description.

- 8) At this point you will have several piles of litter that represent different “ITEM DESCRIPTIONS.” Now you will inspect these individual piles of litter and record as many brand names as possible. You need not measure the weight or volume of this classification; rather, you need only record the number of items that correspond to each “BRAND NAME.”

Attachment 10 titled Brand Names contains some commonly found brand names that you might encounter during your litter collection. It is quite possible that you will find some brand names in your litter that are not present on the list. When you do find a new brand name that does not appear on the list, simply assign this item the code for other (997) and write the actual brand name on page 4 of the Inventory Hard Copy in the column titled Other Brand Name.

Once the litter has been categorized by brand name, you will enter the data for each brand name pile on page 4 of the Inventory Hard Copy. Each record within the table will represent a unique pile of litter that has been categorized from the most general categorization (LITTER USE) to the most specific categorization (BRAND NAME). The hierarchy of litter classification is as follows:

- LITTER USE
- LITTER COMPOSITION
- LITTER ITEM DESCRIPTION
- LITTER BRAND NAME

Table 3 provides an example of what page 4 of your Inventory Hard Copy might look like for two specific records.

**TABLE 3: INVENTORY HARD COPY EXAMPLE**

COMPOSITION	USE	ITEM DESCRIPTION	BRAND NAME OR DISTRIBUTOR	TALLY
C	3	412	12	1
C	3	412	70	1

It is probable that there will be many pieces of litter whose brand name is unidentifiable. For these, simply identify the brand name as “unknown” and assign it a code of “209.”

- 9) When this process has been completed for one segment, remove all the litter from that segment and begin the same process for the next segment. This same process is to be utilized for each segment until all the litter from each segment has been recorded.



10) Upon completion of each field litter inventory, the data should be faxed to:

Nustats

Attention: Chris Simek

(512) 306-9077

The data should include the following information for each segment inventoried:

- Inventory Hard Copy
- Segment Data Sheet
- Potential Litter Sources

**Note:** The fax cover sheet should include the number of pages that are included in the transmission. The fax transmittal should occur within 24 hours of the completion of litter inventory. Arrangements have been made so that you may use the TxDOT fax machines. **One the information has been faxed, call Nustats to confirm that the data has been received. Do not leave the TxDOT district office until you receive confirmation that the data has been received.**

11) Once the information has been faxed, proceed with the litter collection as scheduled.

## FIELD MANUAL ATTACHMENT 1: MASTER SITE LIST

SEGMENT ID	TxDOT DISTRICT	COUNTY	ROAD TYPE	SEGMENT DESCRIPTION	URBAN/RURAL
ABL 01	ABILENE	CALLAHAN	1	IH 20 AT FM 603	R
ABL 02	ABILENE	SCURRY	2	US 84 AT FM 612	R
AMR 01	AMARILLO	ARMSTRONG	3	SH 207, 2 MILES SOUTH OF US 287	R
AMR 02	AMARILLO	CARSON	1	IH 40 AT FM 2880	R
AMR 03	AMARILLO	POTTER	2	US 287 AT THE POTTER MOORE COUNTY LINE - SOUTH OF RAILROAD BRIDGE	R
ATL 01	ATLANTA	BOWIE	2	US 59/71 IMMEDIATELY NORTH OF SPUR 14	U
ATL 03	ATLANTA	BOWIE	3	SH 93 AT FM 558 NORTH OF WAGNER CREEK	U
ATL 04	ATLANTA	CAMP	4	FM 557, 2.1 EAST OF US 271	R
AUS 00	AUSTIN	GILLESPIE	3	SH 16 SOUTH AT FREDERICKSBURG CITY LIMIT PROCEEDING SOUTH	U
AUS 01	AUSTIN	TRAVIS	4	FM 2244 BEGINNING AT SH 71	U
AUS 02	AUSTIN	HAYS	1	IH 35 BETWEEN FM 1327 AND FM 1626	U
AUS 04	AUSTIN	TRAVIS	2	US 183 BETWEEN FM 812 AND FM 1625	U
AUS 05	AUSTIN	TRAVIS	4	FM 969 BETWEEN FM 3177 AND FM 973	U
AUS 06	AUSTIN	TRAVIS	1	IH 35 AT FM 1825	U
AUS 07	AUSTIN	WILLIAMSON	1	IH 35 AT FM 1431	U
AUS 08	AUSTIN	HAYS	1	IH 35 AT SH 4 LOOP	U
AUS 10	AUSTIN	TRAVIS	3	SH 71 EAST OF FM 973	U
BMT 01	BEAUMONT	JEFFERSON	1	IH 10, EAST OF THE NECHES RIVER BRIDGE, TOWARDS VIDOR - WEST IF RIGHT OF WAY	U
BMT 02	BEAUMONT	LIBERTY	2	US 59 AT THE MONTGOMERY COUNTY LINE	R
BMT 03	BEAUMONT	LIBERTY	3	SH 321 AT FM 1008	R
BMT 04	BEAUMONT	LIBERTY	4	FM 1960 AT FM 686	R
BRW 01	BROWNWOOD	BROWN	2	US 67 IMMEDIATELY WEST OF FM 1467	R
BRY 01	BRYAN	FREESTONE	1	IH 45 AT THE FREESTONE /LEON COUNTY LINE	R
BRY 02	BRYAN	BURLESON	4	FM 50 AT FM 1361	R

BRY 03	BRYAN	BURLESON	3	SH 36 BETWEEN FM 976 AND FM 60	R
BRY 04	BRYAN	WASHINGTON	2	US 290 LOOP AT FM 2447	U
CHL 01	CHILDRESS	CHILDRESS	2	US 287 IMMEDIATELY EAST OF FM 2875	R
COR 01	CORPUS CHRISTI	LIVE OAK	1	IH 37 IMMEDIATELY SOUTH OF FM 799	R
COR 02	CORPUS CHRISTI	NUECES	3	SH 358 AT IH 37	U
COR 03	CORPUS CHRISTI	SAN PATRICIO	4	FM 136 AT FM 3284	R
DAL 01	DALLAS	COLLIN	3	SH 121 1500' NORTH OF FM 2933	U
DAL 02	DALLAS	COLLIN	3	SH 78 1500' WEST OF SH 205	U
DAL 03	DALLAS	DALLAS	1	IH 35 EAST, 1 MILE NORTH OF LOOP 635, NORTH OF DOWNTOWN	U
DAL 04	DALLAS	DALLAS	1	IH 20 IMMEDIATELY WEST OF FM 1382	U
DAL 05A	DALLAS	DALLAS	1	IH 20 EAST OF IH 45	U
DAL 05B	DALLAS	ELLIS	1	IH 35 EAST 1500' SOUTH OF SH 34	R
DAL 06	DALLAS	ELLIS	2	US 287 3000' SOUTH OF BUSINESS 67	R
DAL 07	DALLAS	ELLIS	4	FM 660 SOUTH OF ITS INTERSECTION WITH FM 813	R
DAL 08	DALLAS	KAUFMANN	1	IH 20 1500' EAST OF FM 2932	R
DAL 09	DALLAS	KAUFMANN	1	IH 20 1500' EAST OF FM 2965	R
DAL 10	DALLAS	KAUFMANN	2	US 175 1500' SOUTH OF BUSINESS 175 NORTHWEST OF MABANK	R
DAL 11	DALLAS	KAUFMANN	3	SH 274 1500' SOUTH OF FM 148	R
DAL 12	DALLAS	NAVARRO	1	IH 45 AT FM 1126, 1500' SOUTH OF MILE POST 240	R
DAL 13	DALLAS	NAVARRO	2	US 287 1500' EAST OF FM 3243	R
DAL 14	DALLAS	NAVARRO	3	SH 22 WEST OF FM 1839	R
DAL 15	DALLAS	ROCKWALL	1	IH 30, 1500' WEST OF FM 740	U
ELP 01	EL PASO	EL PASO	1	IH 10 IMMEDIATELY NORTH OF ITS NORTHERNMOST INTERSECTION WITH IH 20	U
ELP 02	EL PASO	EL PASO	2	US 54 AT TEXAS - NEW MEXICO STATE LINE	R
ELP 03	EL PASO	EL PASO	4	FM 76 BETWEEN FM 659 AND SPUR 375	U
FTW 01	FORT WORTH	JOHNSON	2	US 67 EAST OF FM 2331	R
FTW 02	FORT WORTH	JOHNSON	3	SH 171N AT JOHNSON COUNTY LINE	R
FTW 03	FORT WORTH	JOHNSON	4	FM 2331	R

FTW 04	FORT WORTH	PALO PINTO	1	IH 20 AT SH 193	R
FTW 05	FORT WORTH	PARKER	1	IH 20 NORTHEAST OF FM 113	R
FTW 06	FORT WORTH	PARKER	3	SH 199 AT FM 2257	R
FTW 07	FORT WORTH	PARKER	3	SH 171 SOUTH OF FM 51	R
FTW 08	FORT WORTH	TARRANT	1	IH 30 EAST, IMMEDIATELY EAST OF SH 360, EAST OF FT. WORTH	U
FTW 09	FORT WORTH	TARRANT	1	IH 20 EAST, IMMEDIATELY EAST OF SH 360, EAST OF FT. WORTH	U
HOU 01	HOUSTON	HARRIS	3	SH 249 NORTH OF FM 1960	U
HOU 03	HOUSTON	HARRIS	3	SH 529 WEST OF THE SH 529-SH 6 INTERSECTION	U
HOU 04	HOUSTON	HARRIS	1	IH 10 IMMEDIATELY WEST OF SH 6 ON THE WEST SIDE OF HOUSTON	U
HOU 05	HOUSTON	HARRIS	1	IH 45 BETWEEN IH LOOP 610 AND SH 249	U
HOU 06	HOUSTON	HARRIS	1	IH 45 BETWEEN FM 2920 AND FM 1960	U
HOU 07	HOUSTON	HARRIS	1	IH 10 AT HARRIS/CHAMBERS COUNTY LINE	R
HOU 08	HOUSTON	HARRIS	2	US 59 BETWEEN SH 288 AND IH LOOP 610	U
HOU 09	HOUSTON	HARRIS	3	SH 288 BETWEEN IH LOOP 610 AND US 90A - SOUTH OF HOUSTON	U
HOU 11	HOUSTON	MONTGOMERY	4	FM 2854 FROM SH 105 PROCEEDING SOUTH FOR 1500 FEET	R
HOU 12	HOUSTON	HARRIS	1	IH 10 BETWEEN IH LOOP 610 AND SH 8 - WEST OF HOUSTON	U
HOU 13	HOUSTON	HARRIS	3	SH 8 BETWEEN IH 10 AND US 90 - WEST OF HOUSTON	U
HOU 14	HOUSTON	HARRIS	2	US 90 BETWEEN SH 8 AND FM 2100 - NORTHEAST OF HOUSTON	R
HOU 15	HOUSTON	WALLER	1	IH 10 IMMEDIATELY EAST OF THE WALLER/AUSTIN COUNTY LINE	R
HOU 16	HOUSTON	WALLER	2	US 290 AT WALLER/WASHINGTON COUNTY LINE	R
HOU 17	HOUSTON	MONOGOMERY	3	SH 249 AT THE HARRIS/MONTGOMERY LINE	R
HOU 18	HOUSTON	MONTGOMERY	1	IH 45 BETWEEN THE HARRIS/MONTGOMERY LINE AND SHENANDOAH	U
HOU 21	HOUSTON	MONTGOMERY	4	FM 242 BETWEEN FM 1314 AND WEST FORK SAN JACINTO RIVER	R
HOU 22	HOUSTON	MONTGOMERY	4	FM 1314 BETWEEN US 59 AND FM 242	R
HOU 25	HOUSTON	FORT BEND	3	SH 36 BETWEEN FM 361 AND NEEDVILLE	R
LBK 01	LUBBOCK	HOCKLEY	3	SH 114 BETWEEN RM 260 AND 262, WEST OF LEVELLAND	U
LBK 02	LUBBOCK	LUBBOCK	4	FM 179 AT US 82 SOUTHWET OF WOLFORTH	R
LBK 03	LUBBOCK	TERRY	2	US 385 SOUTH OF FM 2196	R

LDO 01	LAREDO	KINNEY	2	US 90 MILE MARKER 446-448(RM 446 APPROXIMATELY 4.5MILES WEST OF BRACKETVILLE)	R
LDO 02	LAREDO	KINNEY	3	SH 131 MILE MARKER 516-518(RM 516 APPROXIMATELY 8 MILES SOUTH OF BRACKETVILLE)	R
LUF 01	LUFKIN	ANGELINA	4	FM 2108 FROM FM 3312 TO SH 58	U
LUF 02	LUFKIN	POLK	2	US 287 EAST OF FM 1872	R
LUF 03	LUFKIN	SAN JACINTO	2	US 59 AT LIBERTY COUNTY LINE	R
ODS 01	ODESSA	ECTOR	1	IH 20 FROM WEST OF US 385	U
ODS 02	ODESSA	ECTOR	2	US 385 AT FM 1787 PROCEEDING 4 MILES NORTH	R
ODS 03	ODESSA	WARD	3	SH 18 FROM FM 1219 PROCEEDING 5 MILE NORTH	R
PHR 01	PHARR	BROOKS	2	US 281 AT FM 3066	R
PHR 02	PHARR	HIDALGO	3	SH 107 FROM RM 514 TO RM 516	R
PHR 03	PHARR	HIDALGO	4	FM 490 FROM RM 506 TO RM 508	R
PHR 04	PHARR	STARR	2	US 83 BETWEEN RIO GRANDE CITY AND OLMOS	R
PRS 01	PARIS	LAMAR	2	US 82 AT FM 1502	R
PRS 02	PARIS	LAMAR	3	SH 19 NORTH OF DELTA COUNTY LINE	R
PRS 03	PARIS	LAMAR	4	FM 196 IMMEDIATELY NORTH OF US 271	R
SAT 01	SAN ANTONIO	BEXAR	4	FM 2696 BETWEEN FM LOOP 1604 AND CAMP BULLIS	U
SAT 02	SAN ANTONIO	COMAL	1	IH 35 AT HAYS COUNTY LINE	R
SAT 03	SAN ANTONIO	BEXAR	3	SH 16 BETWEEN IH LOOP 410 AND FM LOOP 1604	U
SAT 04	SAN ANTONIO	BEXAR	1	IH LOOP 410 BETWEEN US 90 AND SH 16	U
SAT 05	SAN ANTONIO	COMAL	4	FM 3009 FROM IH 35 TO FM 2252	U
SAT 06	SAN ANTONIO	BEXAR	2	US 181 SOUTH OF THE US 181/SH 122 INTERSECTION	R
SAT 07	SAN ANTONIO	BEXAR	2	US 87 BETWEEN FM 1628 AND IH LOOP 410	U
SAT 08	SAN ANTONIO	BEXAR	1	IH 35 BETWEEN FM LOOP 1604 BEXAR/ATASCOSA COUNTY LINE	R
SAT 09	SAN ANTONIO	BEXAR	1	IH 10 EAST BETWEEN FM 1516 AND 1604	R
SAT 10	SAN ANTONIO	GUADALUPE	3	SH 123 AT GUADALUPE/HAYS COUNTY LINE	R
SAT 11	SAN ANTONIO	KERR	1	IH 10 AT KERR COUNTY LINE BY MILE MARKER 522	R
SJT 01	SAN ANGELO	TOM GREEN	2	US 87 BETWEEN FM 2288 AND CARLSBAD	R
SJT 02	SAN ANGELO	TOM GREEN	2	US 277 BETWEEN CHRISTOVAL AND FM 235	R

TYL 01	TYLER	CHEROKEE	4	FM 747, 1.5 SOUTH OF US 79	U
TYL 02	TYLER	GREGG	3	SH 300 THREE MILES NORTH OF SPUR 281	U
TYL 03	TYLER	HENDERSON	3	SH 19 AT FM 2709	R
TYL 04	TYLER	SMITH	2	US 69 SOUTH OF IH 20	R
TYL 05	TYLER	VAN ZANDT	1	IH 20 IMMEDIATELY EAST OF FM 1255	R
WAC 01	WACO	BELL	3	SH 36 BETWEEN SH 317 AND FM 2409	U
WAC 02	WACO	BELL	4	IH 35 BETWEEN FM 2484 AND US 190	U
WAC 03	WACO	MCLENNAN	2	US 84 BETWEEN THE MCLENNAN-CORYELL LINE AND SH 317	U
WAC 04	WACO	MCLENNAN	3	SH 6 BETWEEN FM 1825 AND THE LAKE WACO BRIDGE	R
WAC 05	WACO	MCLENNAN	1	IH 35 BETWEEN FM 308 AND FM 3149	R
WAC 06	WACO	BOSQUE	4	FM 2490 AT THE BOSQUE-MCLENNAN COUNTY LINE	R
WTF 01	WICHITA FALLS	CLAY	2	US 287 FROM SP 510 PROCEEDING 1500 FEET SOUTH	R
WTF 02	WICHITA FALLS	WICHITA	2	US 281 FROM FM 369 PROCEEDING 1500' NORTH	U
YOK 01	YOAKUM	JACKSON	2	US 59 AT FM 234	R
YOK 02	YOAKUM	VICTORIA	3	SH 185 SOUTH OF US 59 ON SOUTHEAST SIDE OF VICTORIA	U
YOK 03	YOAKUM	WHARTON	4	FM 102, IMMEDIATELY NORTHWEST OF US 59	R

## FIELD MANUAL ATTACHMENT 2: SEGMENT DATA SHEET

### Visible Litter Study Segment Data Sheet

Segment ID:

Litter Accumulation Period:

TxDOT District:

County:

Physical Location of Segment:

Road Type:

Segment  
Description:

Direction Segment Proceeds from starting point:  
(N,S,E,W)

# of Medians Collected:

No.  
Lanes:

Frontage Road  
(Y/N):

Drawing of Roadway (lanes and medians):

Width of Segment (should include width of all medians):

Length of Segment (should be 1,500 or 500 feet):

Adjoining Land Uses (circle all that apply):

- |             |              |                 |
|-------------|--------------|-----------------|
| Industrial  | Commercial   | Undeveloped     |
| Residential | Agricultural | Other (Explain) |

Field Notes:

Include general description of the segment being inventoried. Such items worth mentioning include the presence of tall grass, roadway under construction, recently mowed segment, progressive uphill grade, presence of on/off ramps, no litter collected, etc.

If Residential, circle one of the following characteristics:

- |       |          |       |
|-------|----------|-------|
| Urban | Suburban | Rural |
|-------|----------|-------|



Survey Start Time:

Survey End Time:

Field Notes:

## FIELD MANUAL ATTACHMENT 3: EQUIPMENT CHECK LIST

Districts: \_\_\_\_\_ Team Leader \_\_\_\_\_

### FIELD EQUIPMENT CHECKLIST

- \_\_\_\_\_ Stakes
- \_\_\_\_\_ Flagging
- \_\_\_\_\_ Hammer
- \_\_\_\_\_ Waterproof Pen
- \_\_\_\_\_ Plastic Bags
- \_\_\_\_\_ Measuring Tape or Wheel
- \_\_\_\_\_ Clipboard
- \_\_\_\_\_ Field Manual
- \_\_\_\_\_ Maps of Site Segments
- \_\_\_\_\_ Safety Vest
- \_\_\_\_\_ Gloves
- \_\_\_\_\_ Safety Glasses (optional)
- \_\_\_\_\_ Safety Belt (optional)

## FIELD MANUAL ATTACHMENT 4: PHASE II LOGISTICS PLAN

PURGE	TxDOT DISTRICT	COUNTY	ID	SEGMENT ID	INVENTORY	SECTION	PHONE
05/30/01	EL PASO	EL PASO	35**	ELP 01	07/09/01	Rudy Lugo	915-857-5041
05/30/01	EL PASO	EL PASO	37**	ELP 03	07/09/01	Rudy Lugo	915-857-5041
05/30/01	EL PASO	EL PASO	36	ELP 02	07/09/01	Rudy Lugo	915-857-5041
05/30/01	ODESSA	ECTOR	63	ODS 02	07/10/01	Jesse Gutierrez	915-498-4615
05/30/01	ODESSA	ECTOR	62	ODS 01	07/10/01	Jesse Gutierrez	915-498-4615
05/30/01	ODESSA	WARD	64	ODS 03	07/10/01	Merle Miller	915-943-3271
05/31/01	AMARILLO	ARMSTRONG	03^	AMR 01	07/12/01	Parker Stewart	806-226-2321
05/31/01	AMARILLO	CARSON	04	AMR 02	07/12/01	Randall Patterson	806-537-3384
05/31/01	AMARILLO	POTTER	05	AMR 03	07/12/01	Joe Don Prather	806-383-1661
05/31/01	LUBBOCK	LUBBOCK	55	LBK 02	07/11/01	Jim Odon	806-745-4688
05/31/01	LUBBOCK	TERRY	56	LBK 03	07/11/01	Johnnie Howard	806-637-8913
06/01/01	CHILDRESS	CHILDRESS	15^	CHL 01	07/13/01	Ernest Lucero	940-937-7132
06/04/01	ABILENE	CALLAHAN	01^	ABL 01	07/02/01	Marvin Rogers	915-854-1353
06/04/01	ABILENE	SCURRY	02	ABL 02	07/02/01	Jack Talley	915-573-0142
06/05/01	BROWNWOOD	BROWN	14	BRW 01	07/03/01	Jim Sharp	915-6462591
06/06/01	AUSTIN	GILLESPIE	09*	AUS 00	7/04/01	Terry Brussell	830-868-7166
06/07/01	SAN ANTONIO	COMAL	73	SAT 05	07/04/01	Arlon Nowotny	830-609-0707
06/07/01	SAN ANTONIO	COMAL	72	SAT 02	07/04/01	Arlon Nowotny	830-609-0707
06/07/01	SAN ANTONIO	GUADALUPE	74*	SAT 10	07/04/01	James Mikesh	830-303-0130
06/07/01	SAN ANTONIO	KERR	75**	SAT 11	07/04/01	Bruce Eliker	830-816-2430
06/08/01	LAREDO	KINNEY	58	LDO 02	07/05/01	Juan Hernandez	830-563-2326
06/08/01	LAREDO	KINNEY	57	LDO 01	07/05/01	Juan Hernandez	830-563-2326
06/09/01	YOAKUM	JACKSON	83	YOK 01	07/06/01	Robert Mozisek	361-782-2322
06/09/01	YOAKUM	VICTORIA	84	YOK 02	07/06/01	Ronald Roecker	361-573-6681
06/09/01	YOAKUM	WHARTON	85^	YOK 03	07/06/01	Fernando Cerillo Jr.	979-532-3141

PURGE	TxDOT DISTRICT	COUNTY	ID	SEGMENT ID	INVENTORY	SECTION	PHONE
06/11-15/01	WICHITA FALLS	CLAY	81	WTF 01	07/23/01	Lewis Faver Jr.	940-538-6561
06/11-15/01	WICHITA FALLS	WICHITA	82	WTF 02	07/23/01	Ricky Velez	940-322-8669
06/12-15/01	FORT WORTH	JOHNSON	40	FTW 03	07/24-28/01	Allan Farquar	817-645-0181
06/12-15/01	FORT WORTH	JOHNSON	39***	FTW 02	07/24-28/01	Allan Farquar	817-645-0181
06/12-15/01	FORT WORTH	JOHNSON	38***	FTW 01	07/24-28/01	Allan Farquar	817-645-0181
06/12-15/01	FORT WORTH	PALO PINTO	41	FTW 04	07/24-28/01	John Sharpe	940-325-2414
06/12-15/01	FORT WORTH	PARKER	43	FTW 06	07/24-28/01	Alan Donaldson	817-594-5626
06/12-15/01	FORT WORTH	PARKER	44	FTW 07	07/24-28/01	Alan Donaldson	817-594-5626
06/12-15/01	FORT WORTH	PARKER	42	FTW 05	07/24-28/01	Alan Donaldson	817-594-5626
06/12-15/01	FORT WORTH	TARRANT	46	FTW 09	07/24-28/01	Bobby Etheredge	817-275-1921
06/12-15/01	FORT WORTH	TARRANT	45**	FTW 08	07/24-28/01	Bobby Etheredge	817-275-1921
06/13-15/01	DALLAS	COLLIN	19	DAL 01	07/25-28/01	Jimmy McFarland	972-542-2461
06/13-15/01	DALLAS	COLLIN	20*	DAL 02	07/25-28/01	Jimmy McFarland	972-542-2461
06/13-15/01	DALLAS	DALLAS	21	DAL 03	07/25-28/01	Keith Nabors	940-387-1324
06/13-15/01	DALLAS	DALLAS	22	DAL 04	07/25-28/01	Travis Bartlow	972-263-1387
06/13-15/01	DALLAS	DALLAS	23**	DAL 05A	07/25-28/01	Marvin Hanks	972-225-2326
06/13-15/01	DALLAS	ELLIS	26	DAL 07	07/25-28/01	Harold Campbell	972-938-2960
06/13-15/01	DALLAS	ELLIS	24	DAL 05B	07/25-28/01	Harold Campbell	972-938-2960
06/13-15/01	DALLAS	ELLIS	25	DAL 06	07/25-28/01	Harold Campbell	972-938-2960
06/13-15/01	DALLAS	KAUFMANN	30	DAL 11	07/25-28/01	James Godwin	972-962-3848
06/13-15/01	DALLAS	KAUFMANN	27	DAL 08	07/25-28/01	James Godwin	972-962-3848
06/13-15/01	DALLAS	KAUFMANN	29	DAL 10	07/25-28/01	James Godwin	972-962-3848
06/13-15/01	DALLAS	KAUFMANN	28	DAL 09	07/25-28/01	James Godwin	972-962-3848
06/13-15/01	DALLAS	NAVARRO	33	DAL 14	07/25-28/01	Donald Green	903-874-5361
06/13-15/01	DALLAS	NAVARRO	32	DAL 13	07/25-28/01	Donald Green	903-874-5361
06/13-15/01	DALLAS	NAVARRO	31	DAL 12	07/25-28/01	Donald Green	903-874-5361
06/13-15/01	DALLAS	ROCKWALL	34	DAL 15	07/25-28/01	Hershell Derryberry	972-771-9911

PURGE	TxDOT DISTRICT	COUNTY	ID	SEGMENT ID	INVENTORY	SECTION	PHONE
06/18/01	PARIS	LAMAR	69	PRS 01	07/16/01	Nick Adams	903-785-4468
06/18/01	PARIS	LAMAR	71	PRS 03	07/16/01	Nick Adams	903-785-4468
06/18/01	PARIS	LAMAR	70	PRS 02	07/16/01	Nick Adams	903-785-4468
06/19/01	ATLANTA	BOWIE	07	ATL 03	07/17/01	Brad Haugh	903-838-8574
06/19/01	ATLANTA	BOWIE	06	ATL 01	07/17/01	Brad Haugh	903-838-8574
06/19/01	ATLANTA	CAMP	08^	ATL 04	07/17/01	Lonnie Barrett	903-572-8511
06/20/01	TYLER	CHEROKEE	76^	TYL 01	07/18/01	Bill Terry	903-586-9411
06/20/01	TYLER	GREGG	77	TYL 02	07/18/01	Don McQuitty	903-234-2504
06/20/01	TYLER	HENDERSON	78	TYL 03	07/18/01	Tony Buford	903-675-3809
06/20/01	TYLER	SMITH	79	TYL 04	07/18/01	Eldon McUrley	903-592-8991
06/20/01	TYLER	VAN ZANDT	80	TYL 05	07/18/01	Mark McClanahan	903-567-6574
06/21/01	LUFKIN	ANGELINA	59	LUF 01	07/19/01	Robert Favor	936-634-3414
06/21/01	LUFKIN	POLK	60	LUF 02	07/19/01	Kevin Luna	936-327-8914
06/21/01	LUFKIN	SAN JACINTO	61	LUF 03	07/19/01	Willie Wright	936-628-3328
06/22/01	HOUSTON	FORT BEND	47	HOU 02	07/20/01	Helga Williams	281-238-7950
06/22/01	HOUSTON	HARRIS	48	HOU 04	07/20/01	Michael Tagliarini	713-934-5900
06/22/01	HOUSTON	HARRIS	49	HOU 06	07/20/01	Bobbie Bridges	281-319-6450
06/22/01	HOUSTON	HARRIS	50	HOU 07	07/20/01	Gary Hall	713-636-7400
06/22/01	HOUSTON	MONTGOMERY	51*	HOU 11	07/20/01	Delbert Aldredge	936-538-3350
06/22/01	HOUSTON	WALLER	52	HOU 15	07/20/01	Charles Neuman	979-826-2311
06/22/01	HOUSTON	WALLER	53**	HOU 16	07/20/01	Charles Neuman	979-826-2311
06/22/01	LUBBOCK	HOCKLEY	54^	LBK 01	07/11/01	Tracy Cumby	806-894-4323
06/23/01	BEAUMONT	JEFFERSON	10^	BMT 01	07/21/01	John Petri	409-924-6522
06/23/01	BEAUMONT	LIBERTY	11	BMT 02	07/21/01	Danny Crenwelge	830-997-4361
06/23/01	BEAUMONT	LIBERTY	12	BMT 03	07/21/01	Gary Beverly	281-592-3601
06/23/01	BEAUMONT	LIBERTY	13	BMT 04	07/21/01	Gary Beverly	281-592-3601
06/25/01	CORPUS CHRISTI	LIVE OAK	16^	COR 01	07/30/01	Noel Ibarra	361-664-5316

<b>PURGE</b>	<b>TxDOT DISTRICT</b>	<b>COUNTY</b>	<b>ID</b>	<b>SEGMENT ID</b>	<b>INVENTORY</b>	<b>SECTION</b>	<b>PHONE</b>
06/25/01	CORPUS CHRISTI	NUECES	17	COR 02	07/30/01	Jerry Thompson	361-289-1400
06/25/01	CORPUS CHRISTI	SAN PATRICIO	18^	COR 03	07/30/01	Jim Jennings	361-364-1181
06/26/01	PHARR	BROOKS	65	PHR 01	07/30/01	Thomas Beltran	361-527-5170
06/26/01	PHARR	HIDALGO	67	PHR 03	07/30/01	Hector Cantu	956-585-5761
06/26/01	PHARR	HIDALGO	66	PHR 02	07/30/01	Hector Cantu	956-585-5761
06/26/01	PHARR	STARR	68	PHR 04	07/30/01	Jesse Lara	956-487-3506

## FIELD MANUAL ATTACHMENT 5: SEGMENT CRITERIA SELECTION SHEET

### Starting Point:

- The starting point will ideally have an identifiable permanent marker such as a mile marker, an intersection, or the edge of a bridge or an abutment. Signs and mailboxes are not to be used as permanent markers, unless there are no other markers that are permanent. Drive stakes into the ground to mark the endpoints for identification by other contractors and Adopt-a-Highway programs. These stakes should be flagged with white flagging.
- The point must be at the beginning of a roadway stretch, which is approximately 500 feet or 1,500 feet in length, without a steep or vertical embankment, waterway crossing, or tunnel. In rural areas, culverts that collect runoff from the roadway are not considered to be waterway crossings and are within the site location criteria.
- The point must be at the beginning of a roadway stretch accessible from a location with safe parking, and which can be safely sampled. Although some risk is inherent with all locations, stretches that allow limited sight visibility should be avoided.
- **If your site is being maintained by an adjacent landowner, move down the segment until you feel comfortable that the private landowner is no longer maintaining the roadway. Try not to select segments that are adjacent to people's front yards or places of business.**
- If your roadway or frontage road has curbs instead of paved shoulders that are flush with the median or roadside, continue down the road in your random direction until there are no curbs (curbs will collect trash, particularly cigarette butts, and we will not collect, nor survey any trash inside a curb so a curb could bias the survey results). If you cannot find an area without curbs and are getting away from your designated stretch of roadway, then go back to the closest starting point with curbs and place your sample site there. Note this on your litter tally sheet and your segment data sheet as unusual results may occur from collecting data at these unique sites.
- If your designated site cannot be used for some reason (flood damage, construction) of which we were unaware before the site was assigned, contact Austin as soon as possible. This contact should take place no later than by the end of the day that you were to purge the site. Upon receiving this information, an evaluation will be made on whether or not to assign your team another segment, or assign someone else in another district another segment.

### Ending Point:

- Just as the starting point ideally should have a permanent marker, so too should the ending point have a permanent marker. The end point should be approximately 500 feet or 1,500 feet from the starting point. If there is not permanent end point available, then a note should be made on the segment data sheet of the exact location of the end point. A photograph to document this location should also be taken and logged on the photograph documentation sheet. Drive several stakes into the ground at the end point of the segment. Make sure it is flagged.

## FIELD MANUAL ATTACHMENT 6: SITE DRAWINGS



Insert PDF of Site Drawings

## FIELD MANUAL ATTACHMENT 7: POTENTIAL LITTER SOURCES

Site No. \_\_\_\_\_

### Potential Litter Sources

1. Drive three miles either direction from your site location and note stores, facilities, parks, etc. These may contribute litter at your location.
2. Use the tally sheet to indicate how many you encountered.

\_\_\_\_\_ Convenience Store

\_\_\_\_\_ Fast Food Restaurant

\_\_\_\_\_ Roadside Park/Rest Stop

\_\_\_\_\_ Shopping Mall/Strip Center

\_\_\_\_\_ Service Station (without convenience facility)

\_\_\_\_\_ Package/Liquor Store

\_\_\_\_\_ School

\_\_\_\_\_ Park (State County, City)

\_\_\_\_\_ Landfill/Recycling Center

\_\_\_\_\_ Tourist Stop

\_\_\_\_\_ Construction Site

\_\_\_\_\_ Other (please specify below)

Other or comments:

## FIELD MANUAL ATTACHMENT 8: INVENTORY HARD COPY

Use	Composition	Item Description	Other Item Description	Brand Name	Other Brand Name	Tally

## FIELD MANUAL ATTACHMENT 9: ITEM DESCRIPTIONS

CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION
1	ac filter	49	box piece	97	cigarette pack
2	aerosol can	50	bracket	98	cigarette papers
3	aerosol cap	51	brake	99	cinder block
4	air filter	52	broom	100	clam shell
5	air freshner	53	broom stick	101	cloth, vinyl
6	air mattress	54	bubble wrap	102	coat
7	aluminum wrap	55	bucket	103	coloring book
8	antenna	56	bumper sticker	104	comb
9	apple	57	bungee cord	105	computer part
10	audio cassette	58	butane bottle	106	condiment pack
11	auto air freshner	59	calendar	107	condom pack
12	auto battery felt	60	camo netting	108	condoms
13	auto bumper	61	can	109	container
14	auto floor mat	62	candle holder	110	container pieces
15	auto headlamp assembly	63	candy	111	cooler lid
16	auto light	64	card	112	cooler pieces
17	auto mat	65	card, business	113	copper tube
18	auto part	66	cardboard	114	corkboard
19	auto registration	67	cardboard piece	115	corrugated box
20	auto related	68	carpet	116	corrugated box piece
21	auto repair form	69	carpet tack board	117	corrugated cardboard
22	auto trim	70	carton	118	cotton
23	automotive	71	cat	119	cotton balls
24	baby nipple	72	caulk	120	cotton fluff
25	bag	73	caulk gun	121	cough drops
26	baking plate	74	cd	122	coupon
27	balloon	75	CD wrap	123	crayon
28	bandage	76	cellophane storage bags	124	credit card
29	bandana	77	cement	125	cup
30	baseball card	78	cement bag	126	cup and straw
31	battery	79	ceramic piece	127	cup holder
32	battery part	80	chair stuffing	128	cup lid
33	bedding	81	check holder	129	cup pieces
34	beer bottle	82	chewing tobacco	130	deposit slip
35	beer can	83	chop stick	131	diaper
36	beer carton	84	cigar	132	dice
37	bikini	85	cigar box	133	dish
38	block	86	cigar butt	134	door trim
39	bolt cover	87	cigar case	135	dress
40	book	88	cigar holder	136	drink pouch

CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION
41	booster cable	89	cigar tip	137	drink ring
42	bottle	90	cigar wrap	138	drinking glass
43	bottle cap	91	cigarette	139	drinking straw
44	bottle cap, wine	92	cigarette butt	140	drinking straw wrapper
45	bottle rings	93	cigarette carton	141	dryer sheet
46	bottles - broken	94	cigarette foil	142	duct tape
47	bow	95	cigarette holder	143	ear protection
48	bowl	96	cigarette lighter	144	elastic
145	elastic bandage	194	golf course score card	242	medicine container
146	electrical outlet	195	grocery bag	243	medicine dropper
147	emery board	196	gum wrap	244	memo
148	extension cord	197	hair beret	245	menu
149	eye glasses	198	hair net	246	metal cap
150	eye liner pencil	199	hard hat	247	metal shaving
151	fan belt	200	hari brush	248	mirror
152	feed sack	201	health item	249	miscellaneous
153	feminine napkin	202	hewspaper	250	mouth wash bottle
154	fencing	203	hose	251	mud flap
155	fiber board	204	hot water heater	252	muffler
156	fiberglass	205	hpodermic needle	253	mylar
157	file folder	206	hub cap	254	newspaper bag
158	filling station napkin	207	hunting bow	255	note pad
159	film	208	ice bag	256	nursery planter
160	film canister	209	indstrial tape	257	nylon
161	flag	210	industrial can	258	nylon rope
162	flare	211	inhaler	259	nylon strap
163	flash bulb	212	inner tube	260	nylon webbing
164	flashlight	213	instructions	261	office supplies
165	flier/catalog	214	insulation	262	oil container
166	flower	215	insulation tap	263	oil filter
167	fluff	216	invoice	264	oil rag
168	foam	217	keg	265	pacifier
169	foam block	218	keg tap	266	package
170	foam rubber	219	key	267	packing material
171	foil	220	knee brace	268	packing slip
172	foil tape	221	knife	269	packing tape
173	food	222	label	270	pad
174	food stamp	223	leather piece	271	paint can
175	food tray	224	license plate	272	paint chip
176	food wrap	225	lid	273	paint lid
177	form	226	lid with straw	274	pallet strap
178	fuel line	227	lighter	275	pants
179	funnel	228	linoleum	276	pantyhose
180	furniture	229	lipstick	277	paper

CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION
181	fuse	230	liquor bottle	278	paper cup
182	garbage bag (empty)	231	lock	279	paper pieces
183	garbage bag (full)	232	lottery ticket	280	paper towel
184	garden container	233	lumber	281	parking ticket
185	garment bag	234	magazine	282	part
186	gas cap	235	magnet	283	particle board
187	gift wrap	236	mail	284	passport
188	glass earpieces	237	map	285	pen
189	glass frames	238	marker	286	pen top
190	glass pieces	239	mask	287	pencil
191	glass, broken	240	match book	288	pencil sharpener
192	glove	241	medicine container	289	pet door
193	golf ball			290	phone book
291	photo	340	shop rag	389	toy
292	pie tin	341	shotgun shell	390	trash can lid
293	pill bottle	342	shovel	391	t-shirts
294	pill container	343	sididng	392	tube
295	pill wrap	344	sign	393	twine
296	pipe	345	six pack	394	twist tie
297	pizza box	346	six pack contaier	395	underwear
298	plant	347	six pack ring	396	utensil
299	plant box	348	skirt	397	utility knife
300	plastic	349	snack wrap	398	velcro
301	plastic pieces	350	snuff	399	video tape
302	plastic sheets	351	sock	400	vinyl
303	plastic strap	352	socket	401	visor
304	plate	353	soda bottle	402	wallet
305	plywood	354	soda can	403	wallpaper
306	polystyrene insulation	355	spark plug	404	wash cloth
307	popsicle stick	356	spark plug box	405	washers
308	pornography	357	speaker cover	406	water jug
309	pottery	358	sponge	407	wheels
310	pudding	359	steel strap	408	windshield wiper
311	pull tab	360	steeldrum lid	409	wine cap
312	pvc	361	sticker	410	wire
313	q-tip	362	stopper	411	wrap
314	radiator cap	363	stove part	412	Feathers
315	radiator hose	364	strap	413	tin
316	radion antenna	365	string	414	newspaper bag
317	rag	366	sunglass rims	415	measuring tape
318	receipt	367	sunglasses	416	rake
319	reflector	368	tag	417	boot
320	registration sticker	369	tampon	418	wrapping paper
321	ribbon	370	tape	419	seat belt

CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION	CODE	ITEM DESCRIPTION
322	ring	371	tarp	420	unknown
323	road marker	372	teddy bear	997	other
324	road part	373	thermos bottle		
325	roofing	374	ticket		
326	roofing felt	375	tie down		
327	rope	376	tile		
328	rubber	377	timing belt		
329	rubberband	378	tinlid		
330	salt pack	379	tire		
331	sandpaper	380	tire and rim		
332	sheet	381	tire parts		
333	sheet rock	382	tire rim		
334	shell casing	383	tire weight		
335	shingles	384	tissue/towel		
336	shirt	385	tools		
337	shoe	386	top		
338	shoe insole	387	towel holder		
339	shoe lace	388	towing device		

## FIELD MANUAL ATTACHMENT 10: BRAND NAMES

CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME
382	22z	407	Benson & Hedges	460	Central Texas Iron Works
321	3M	16	Bic	30	Charms
1	7-Eleven	18	Big Red	31	Checkers
2	7-Up	426	Bill Miller	262	Cheese Nips
3	A&W	432	Bit-O-Honey	217	Chee-tos
269	ACE	366	Black & Mild	374	Chesterfried
368	Act II	333	Blistex	32	Chevrolet
453	ADSMART	350	Blow Pop	33	Chevron
452	Advil	19	Blue Bell	347	Chick Fil-A
397	Airhead	354	Blue Ox	431	Chick-O-Stick
308	Alamo	467	Bonne's Farm	241	Chocken Express
458	Alamo Street	20	Boones Farm	429	Chucky Cheese
4	Albertson's	365	Borden	34	Church's Chicken
5	All Sport	250	Bounty	35	Circle K
6	Almond Joy	21	Brach's	335	Citra
442	American Dream	22	Braum's	405	City of Austin
271	Amrep	270	Briggs Station	348	Clear & Pure
420	Anchor	437	Britney Spears	36	Clearly Canadian
7	Anheiser Busch	267	Bud Light	37	Clorox
8	Arctic Ice	23	Budweiser	462	Coastal Corporation
9	Armor-All	468	Bugles	38	Coca-Cola Classic
317	Austin American Statesman	24	Burger King	314	Colgate
10	Austin Nichols	25	Busch	39	Colt 45
11	Austin Quality	26	Butterfinger	353	Comet Cleaners
418	Auto Trader	237	Cambridge	434	Compact
12	Auto Zone	223	Camel	286	Compass Bank
421	B-4 Auto Parts	265	Camel Lights	41	Continental Cola
13	Bacardi	451	Campbell's	42	Cooler
244	Bake-Ens	385	Canada Dry	43	Coors
14	Band-aids	291	Capitol	268	Coors Light
391	Banner Press	27	Capri Sun	408	Copenhagen
285	Barq's	28	Car Fresh	409	Corn Cob
15	Bartels and James	309	CarQuest	44	Corn Nuts
225	Basic	29	Carta Blanca	239	Corning
332	Benadryl	406	Cartwright	45	Corona
300	Bengal	329	Castrol Oil	475	Country Blend
46	Country Club	337	EvenFlo	295	Grandy's
47	Country Time	384	Everyday	469	Green Sheet
457	Cream of Wheat	56	Evian	68	Guinness
48	Crest	448	Famous Star	69	Halls



<b>CODE</b>	<b>BRAND NAME</b>	<b>CODE</b>	<b>BRAND NAME</b>	<b>CODE</b>	<b>BRAND NAME</b>
456	Crossroads Deli	402	FanFair	472	Hanes
330	Crown	233	Fargo	419	Hardiplank
261	Crown Royal	351	Farley's	383	Hartz
232	Dairy Queen	379	Federal	70	Havoline
486	Dansani	283	Fernando's	71	Hawaiin Punch
363	DejaBlue	425	Fibatape	72	HEB
49	Dentyne	313	Fiesta Mart	73	Hefty
299	Diamond Shamrock	471	FILA	74	Heilman
50	Dillard's	465	Fischer Price	75	Heineken
235	Dixie	326	Ford	76	Heinz
260	Doc Otis Lemonade	57	Fosters	77	Hershey's
387	Dollar General	58	Fragrance Impressions	289	Hersules Hands
51	Dolly Madison	59	Fram	219	HI-C
356	Domino's	60	Fresca	251	Hill Country
224	Doral	274	Frigo	279	Hill Country Fair
52	Dorito's	61	Frito Lay	79	Hi-Lo
229	Dos Equis	273	Fruit & Grain	80	Home Interiors
248	Dot Feed	307	Fruitopia	435	Hoover
280	Double Bubble	482	Funyun's	323	Hornsby's
263	Dr Hytop	334	GAP	81	Hostess
53	Dr. Pepper	413	Gates	218	Hunts
284	Dr.B	62	Gatorade	394	Husky
478	Dunkin Donuts	63	General Electric	82	Ice
227	Durango	424	General Electric	83	Ice House
342	Eagle Electric	64	General Motors	84	IGA
392	Easy Mart	65	Goebel	464	Igloo
483	Ebony	324	Golden Chick	454	Instapack
54	Eckerd Drugs	360	Golden Royal	85	Jack Daniels
316	El Chico	66	Golden State	476	Jack Daniels
55	Energizer	481	Goldschlagger	86	Jack in the Box
272	Enjoyn	367	Good Day	301	Jack Links
474	Epic	212	GPC	303	Jane's Gravel
401	Etienne	67	Grandma's Cookies	87	Janet Lee
287	Jazzercise	369	Lunchables	124	Naya
375	Jhirmack	102	M & M	393	NDS
319	John Boos	103	Magnum	125	Nehi
249	John Deere	210	Marlboro	370	Nesquick
278	Jolly Rancher	253	Marlboro 100's	127	Nestea
88	Juicy Fruit	211	Marlboro Light	128	Nestle
311	Junior Mints	104	Mars	439	Netelix
89	Keebler	423	Marvel	236	Newport
277	Kellogg's	105	Mattel	129	Night Train
325	Kent	305	Maverick	450	Now & Later
90	Kentucky Fried Chicken	106	McDonalds	130	NuGrape

CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME
91	Keystone	107	Meister Brau	372	Nutrena
298	Kit Kat	487	Mellow Yellow	131	Oak Farm
92	Kleenex	228	Merit	320	Oak Hill Gazette
93	K-mart	403	Metabolife	132	Ocean Spray
94	Kodak	108	Micholob	135	Old Milwaukee
230	Koito	109	Mickey's	427	Owen's
359	KOOL	240	Milk Duds	136	Ozarka
255	Kool 100's	110	Milky Way	137	Pabst
292	Kraft	112	Miller	355	Palmetco
95	Kroger	113	Miller Lite	138	Panasonic
414	Kudo's	114	Milwaukee's Best	304	Parade
96	Lance	116	Minute Maid	139	Payless Cashway
389	Lay's	293	Miracle Whip	140	Pearl
97	Leaf	222	Misty	242	Pemmican
395	Levinton	294	Moon Pies	141	Penzoil
349	Lifesavers	117	Moosehead	142	Pepsi
306	Lifestyles	380	Mopar	143	Peter Paul
259	Liggett Select	318	Motel 6	428	Peter Piper
98	Lipton	310	Motor Craft	490	Petsmart
417	Little Ceasar's	449	Mounds	144	Pilsner
99	Little Debbie	118	Mountain Dew	288	Pizza Hut
100	Lone Star	119	Mr.Pibb	358	Pizza Roma
221	Long John Silvers	120	Mrs. Baird	145	Plank Road Brewery
445	Love's	121	Nabisco	146	Planters
101	Lowenbrau	122	Napa Auto Parts	386	Polar Ice
473	Lucky Strike	123	Natural Lite	455	Poly-American
147	Popeye's	422	San Antonio Express	177	Super Bubble
148	Power Aid	399	Sara Lee	178	Super Value
266	Power Bar	158	Schafer	433	Sure
344	Power Block	159	Schlitz	410	Swisher Sweet
441	Power Service	381	Scott	411	Sylvania
398	Prevo's	160	Seagrams	179	Taco Bell
463	Prime Protection	480	Select	180	Taco Cabana
220	Pringles	162	Shiner Bock	238	Tecate
345	PumpCo	446	Shipley's Donuts	341	Teddico
340	Pyramid	415	Sierra Mist	181	Texaco
352	Quaker	281	Siscos	361	Texas Burger
149	Quaker State	226	Skoal	444	Tex-Best
346	Rain Bird	163	Slice	182	The club
328	RAIN-X	302	Slim Fast	234	Thompson Construction Co.
150	Randall's	164	Slim Jim	183	Three Musketeers
466	Randall's	165	Smirnoff	312	Tiger Mart
151	RC Cola	484	Smirnoff	461	Time Warner Cable
315	Red Bull	339	Smoke 1	184	Tom Thumb

CODE	BRAND NAME	CODE	BRAND NAME	CODE	BRAND NAME
152	Red Dog	166	Snapple	185	Tom's
436	Red Flash	167	Snickers	338	Tom's Ribs
231	Reddy Ice	331	Snyders	371	Tonka
153	Reese's	290	SOCO	276	Tootsie Roll
479	Regal	168	Sonic	485	Tostito's
489	Remington	362	Sour Punch	186	Total
275	Ring Pop	247	Southwestern Bell	188	Town and Country
154	Robitussum	327	Spectrum	336	TreeTop
246	Rocky Top Root Beer	169	Sprite	282	Trident
388	Roegelein	376	Squirt	412	Tridon
155	Roloids	416	Stanley	189	Trojan
477	Rold Gold	170	Starburst	190	Tropicana
156	Rolling Rock	171	Texas Lottery Tickets	214	TRUE
488	Rubber Maid	172	Strohs	191	True Flat
245	Ruffles	173	Subway	296	Twix
243	Ruters	364	Sun Mart	396	Twizzlers
213	Salem	175	Sunkist	192	Tylenol
264	Salem Ultra Light 100's	297	Sun-Maid	373	Typhoon
157	Sam's	176	Sunny Delight	357	United Rental
377	Universal Products	208	Ziploc		
209	unknown	997	Other		
252	USA	203	Winchester		
322	USA Gold	204	Winn Dixie		
254	USA Gold 100's	215	Winston		
193	Utopia	216	Winston Lights		
194	V-8	256	Wonka's		
440	Value Pride	205	Wrigley's		
459	Vaseline Intensive Care	400	XHILARATION		
195	Very Fine	206	Yoo Hoo		
404	Viceroy	430	York		
196	Vics Vapor Rub	438	Zep		
258	Virginia Slims	207	Zima		
197	Visine	470	Zima		
257	Waco Tribune				
443	Walgreen's				
198	Wal-mart				
343	Weathermatic				
199	Welches				
378	Wendlands				
200	Wendy's				
201	Whataburger				
390	White Lightning				
447	Whoppers				
202	Wilson's				



# ATTACHMENT 4: LITTER ITEMS BY BRAND NAME AND USE

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Litter Use	Brand Code	Item Code	Tally Count	%	
AGRI CULTURE/GARDEN	ACE	Garden Container	99	100%	
	Capitol	Feed Sack	205	100%	
	Dot Feed	Feed Sack	292	100%	
	Eldorado	Feed Sack	85	100%	
	Federal	Shotgun Shell	229	100%	
	Mr Lincoln	Tag	85	100%	
	Nutrena	Bag	92	100%	
	Powell Farms	Tag	61	100%	
	Purina	Feed Sack	180	100%	
	Top Of The Rockies	Feed Sack	60	100%	
	Toro	Carton	71	100%	
	Typhoon	Bag	183	100%	
	Unknown	Bag		63	1.3%
		Bottle		99	2.0%
		Bucket		65	1.4%
		Buffer Pad		535	11%
		Can		321	6.7%
		Corrugated Box Pie		196	4.1%
		Feed Sack		416	8.6%
		Plant Box		137	2.8%
Rake			2988	62%	
Water Works	Carton	188	100%		
Wendlands	Feed Sack	229	100%		
Winchester	Carton		143	2.4%	
	Shotgun Shell		5843	98%	

Litter Use	Brand Code	Item Code	Tally Count	%
ALCOHOLIC BEVERAGE	Anheuser Busch	Beer Bottle	40	2.6%
		Beer Can	1501	97%
	Bacardi	Liquor Bottle	40	100%
	Boones Farm	Bottle	188	67%
		Liquor Bottle	268	133%
	Breezer	Carton	85	100%
	Bud Light	Beer Bottle	10313	24%
		Beer Can	31081	72%
		Beer Carton	1804	4.2%
		Beverage Cup	74	0.2%
		Bottle Cap	99	0.2%
	Budweiser	Beer Bottle	9405	28%
		Beer Can	23037	69%
		Beer Carton	437	1.3%
		Bottle Cap	355	1.1%
	Busch	Beer Bottle	332	4.0%
		Beer Can	7799	94%
		Beer Carton	181	2.2%
	Cisco	Liquor Bottle	64	100%
	Clearly Canadian	Beer Can	86	100%
	Colt 45	Beer Can	65	100%
	Coors	Beer Bottle	752	9.7%
		Beer Can	6043	78%
		Beer Carton	439	5.7%
		Bottles-Broken	515	6.7%
	Coors Light	Beer Bottle	2474	11%
		Beer Can	18405	83%
		Beer Carton	708	3.2%
		Beverage Cup	95	0.4%
		Cardboard	172	0.8%
		Label	321	1.4%
	Corona	Beer Bottle	704	100%
	Crown Royal	Bag	229	57%
Cardboard		113	28%	
Liquor Bottle		58	15%	

Litter Use	Brand Code	Item Code	Tally Count	%
ALCOHOLIC BEVERAGE	Doc Otis Lemonade	Can	58	100%
	Dos Equis	Beer Bottle	219	54%
		Beer Can	188	46%
	Goldschlagger	Liquor Bottle	66	100%
	Heineken	Beer Bottle	614	90%
		Beer Can	71	10%
	Hornsby s	Bottle	224	100%
	Icehouse	Beer Can	66	100%
	Jack Daniels	Liquor Bottle	75	100%
	Kahlúa	Liquor Bottle	125	100%
	Kentucky Deluxe	Liquor Bottle	95	100%
	Keystone	Beer Bottle	334	3.6%
		Beer Can	8875	95%
		Beer Carton	172	1.8%
	Lone Star	Beer Bottle	164	10%
		Beer Can	1433	90%
	Lowenbrau	Beer Carton	113	100%
	Magnum	Beer Bottle	93	9.0%
		Beer Can	942	91%
	Meister Brau	Beer Can	308	100%
	Michelob	Beer Bottle	584	56%
		Beer Can	358	34%
		Beer Carton	100	9.6%
	Mikes	Liquor Bottle	184	100%
	Miller	Beer Bottle	743	12%
		Beer Can	5288	87%
		Beer Carton	63	1.0%
	Miller Lite	Beer Bottle	3021	16%
		Beer Can	16039	83%
		Beer Carton	297	1.5%
	Milwaukee's Best	Beer Can	3094	97%

Litter Use	Brand Code	Item Code	Tally Count	%
ALCOHOLIC BEVERAGE	Milwaukee's Best	Beer Carton	86	2.7%
	Modelo	Beer Can	71	100%
	Natural Lite	Beer Bottle	953	8.9%
		Beer Can	8843	83%
		Beer Carton	908	8.5%
	O'douls	Beer Bottle	63	100%
	Old Milwaukee	Beer Bottle	86	6.1%
		Beer Can	1319	94%
	Pearl	Beer Can	553	100%
	Red Dog	Beer Can	458	100%
	Schafer	Beer Can	86	100%
	Schlitz	Beer Can	566	100%
	Seagrams	Bottle	560	49%
		Liquor Bottle	577	51%
	Shiner Bock	Beer Bottle	206	84%
		Beer Carton	40	16%
	Skool	Liquor Bottle	65	100%
	Smirnoff	Beer Bottle	591	39%
		Beer Carton	296	19%
		Carton	73	4.8%
		Liquor Bottle	566	37%
	Special Brew	Beer Bottle	56	100%
	Tecate	Beer Can	502	81%
		Beer Carton	120	19%
	Unknown	Beer Bottle	700	8.4%
		Beer Can	376	4.5%
		Bottles- Broken	4323	52%
Cardboard		2748	33%	
Liquor Bottle		211	2.5%	
Zima	Beer Bottle	432	60%	
	Bottle	226	32%	
	Can	58	8.2%	



Litter Use	Brand Code	Item Code	Tally Count	%
AUTOMOTIVE	Amco	Oil Container	71	100%
	Armor- All	Auto Related	63	100%
	Auto Zone	Bag	99	100%
	Car Fresh	Auto Air Freshener Label	985	93%
			73	6.9%
	CarQuest	Carton	92	100%
	Castrol Oil	Oil Container	277	100%
	Chevrolet	Hub Cap	339	100%
	Chevron	Oil Container	459	57%
		Packing Material	351	43%
	Cleveland Ford	License Plate	591	100%
	Coastal Transporta	Oil Container	251	100%
	Conoco	Oil Container	180	100%
	Cooper	Container	351	100%
	Crown	Oil Container	100	100%
	Dodge	Flier/Catalog	234	100%
	Easy Mart	Oil Container	188	100%
	Ford	Card, Business	61	21%
		Cardboard	100	34%
		Invoice	61	21%
		License Plate	71	24%
	Gates	Label	73	100%
	Golden State	Oil Container	188	100%
Gunk	Aerosol Can	95	100%	
Havoline	Oil Container	77	100%	
Hersules Hands	Auto Related	63	100%	
Hi - Lo	Carton	120	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
AUTOMOTIVE	Jack in the Box	Auto Related	203	100%
	Jegs	Flier/Catalog	99	100%
	John Deere	Oil Container	292	100%
	Koito	Auto Light	155	100%
	Miller	Auto Trim	308	100%
	Motor Craft	Spark Plug Box	92	100%
	Napa Auto Parts	Bag	120	100%
	Penzoil	Oil Container	337	100%
	Power Service	Container	77	100%
	Prestone	Label	95	100%
	Quaker State	Flier/Catalog	184	17%
		Label	203	19%
		Oil Container	668	63%
	RAIN-X	Auto Related	92	48%
		Container	100	52%
	Road Tech	Auto Related	75	50%
		Oil Container	75	50%
	Spectrum	Container	100	100%
	State of Texas	License Plate	71	100%
	Sylvania	Container	203	100%
	Tri don	Container	203	100%
	US Postal Service	Auto Related	61	100%
	Unknown	Auto Bumper	120	0.6%
Auto Headlamp Asse		92	0.5%	
Auto Light		996	5.1%	
Auto Part		361	1.8%	
Auto Related		861	4.4%	
Auto Trim		308	1.6%	
Bottle		188	1.0%	
Carpet		188	1.0%	
Carton	99	0.5%		

Litter Use	Brand Code	Item Code	Tally Count	%
AUTOMOTIVE	Unknown	Container	358	1.8%
		Funnel	974	5.0%
		Gas Cap	212	1.1%
		Hose	188	1.0%
		Hub Cap	272	1.4%
		Oil Container	180	0.9%
		Oil Filter	183	0.9%
		Oil Rag	452	2.3%
		Reflector	646	3.3%
		Seat Belt	2766	14%
		Shop Rag	6277	32%
		Tire Parts	3723	19%
		Tire Rim	86	0.4%
	Valvoline	Oil Container	71	100%
	Vent. Visor	Corrugated Box	175	100%
Via	Box Piece	188	100%	
Wix	Corrugated Box	78	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
CONSTRUCTION/INDUSTRIAL	3M	Bag	92	50%
		Label	92	50%
	ACE	Bag	75	100%
	Advanced Cons	Tag	220	100%
	Altus	Carton	71	100%
	Ampact	Carton	71	100%
	Amrep	Aerosol Can	99	100%
	Avery	Bag	71	100%
	Birmingham	Label	180	100%
	Black Burn	Box Piece	188	100%
	Bondo	Label	63	100%
	Bosch	Corrugated Box Pie	71	100%
	Bunker	Bag	63	100%
	Color Caulk	Caulk	188	100%
	Corning	Insulation	28215	100%
	DK	Shop Rag	197	100%
	Duraline	Bag	188	100%
	Electric cord	Carton	275	100%
	Enjoyn	Aerosol Can	99	100%
	Evergrip	Corrugated Box	71	100%
	Ford	Bag	92	100%
	Gaf	Bag	188	100%
	Harbor	Label	92	100%
	Home Depot	Nail Pouch	71	100%
	Larrys Marine Ct	Corrugated Box	180	100%

Litter Use	Brand Code	Item Code	Tally Count	%
CONSTRUCTION/INDUSTRIAL	Le High	Bag	188	100%
	Levi ton	Contai ner	142	100%
	Lincol n	Label	61	100%
	Loves	Bag	188	100%
	Lubramati c	Caulk	64	100%
	Manco	Packi ng Tape	61	100%
	Marvel	Industri al Can	120	100%
	Mopar	Container	229	100%
	NDS	Plasti c Pieces	94	100%
	Ni ckl os	Corrugated Box	351	100%
	Oatey	Cement	78	100%
	Ol fa	Container	151	100%
	Pal	Container	71	100%
	Pro	Bag	188	100%
	Proj ect Pro.	Carton	203	100%
	Qui ckrete	Cement Bag	351	100%
	Quorum	Carton	180	100%
	Red Head	Box Piece	296	100%
	Reebok	Corrugated Box Pie	4207	100%
	SOCO	Bag	63	100%
	Shurtape	Tape	92	100%
	Si ka	Bag	71	100%
	Southwestern Bell	Si gn	184	100%
	Top Choi ce	Label	92	100%
	Txi	Cement Bag	95	100%

Litter Use	Brand Code	Item Code	Tally Count	%
CONSTRUCTION/INDUSTRIAL	Unknown	Bag	953	0.7%
		Box Piece	285	0.2%
		Bubble Wrap	61	0.0%
		Bucket	65	0.0%
		Buffer Pad	99	0.1%
		Bungee Cord	841	0.6%
		Can	92	0.1%
		Cardboard	690	0.5%
		Cardboard Piece	180	0.1%
		Carton	71	0.1%
		Cement Bag	203	0.1%
		Container	99	0.1%
		Corrugated Box	1045	0.7%
		Corrugated Box Pie	11943	8.6%
		Corrugated Card Bo	3864	2.8%
		Duct Tape	3476	2.5%
		Fencing	94	0.1%
		Fiber Board	627	0.4%
		Fiberglass	3068	2.2%
		Flag	847	0.6%
		Foam	2663	1.9%
		Foam Block	785	0.6%
		Foam Rubber	506	0.4%
		Form	61	0.0%
		Glove	4047	2.9%
		Hard Hat	60	0.0%
		Hose	86	0.1%
		Industrial Can	99	0.1%
		Industrial Tape	261	0.2%
		Instructions	188	0.1%
		Insulation	10064	7.2%
		Label	255	0.2%
		Lid	63	0.0%
		Linoleum	184	0.1%
		Lock	99	0.1%
		Lumber	349	0.3%
		Mask	308	0.2%
		Measuring Tape	4738	3.4%
		Metal Cap	309	0.2%
		Miscellaneous	4109	2.9%
		Nylon Rope	345	0.2%
		PVC	185	0.1%
		Package	99	0.1%
		Packing Material	6000	4.3%
		Packing Tape	188	0.1%
		Pallet Strap	92	0.1%
		Pipe	264	0.2%
		Plastic	1235	0.9%
		Plastic Pieces	42779	31%

Litter Use	Brand Code	Item Code	Tally Count	%		
CONSTRUCTION/INDUSTRIAL	Unknown	Plastic Sheets	3305	2.4%		
		Plywood	906	0.6%		
		Reflector	429	0.3%		
		Road Part	646	0.5%		
		Roofing Felt	1850	1.3%		
		Rope	120	0.1%		
		Rubber	2487	1.8%		
		Sandpaper	1568	1.1%		
		Screen	61	0.0%		
		Sheet Rock	1056	0.8%		
		Shingles	1115	0.8%		
		Shop Rag	8759	6.3%		
		Sign	820	0.6%		
		Steel drum Lid	93	0.1%		
		Strap	1863	1.3%		
		Tag	92	0.1%		
		Tape	790	0.6%		
		Tarp	403	0.3%		
		Tie Down	429	0.3%		
		Tile	296	0.2%		
		Tinlid	229	0.2%		
		Tissue/Towel	203	0.1%		
		Tools	89	0.1%		
		Twine	275	0.2%		
		Unknown	1556	1.1%		
		Utility Knife	203	0.1%		
		Vinyl	206	0.1%		
		Wire	700	0.5%		
			Wej - It	Label	220	100%
			Woods	Label	73	100%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	7- El even	Bag	61	6. 0%
		Beverage Cup	729	72%
		Ti ssue/Towel	127	12%
		Wrap	99	9. 7%
	A. T. Woods	Bag	180	100%
	Act II	Bag	86	100%
	Action Popcorn	Wrap	296	100%
	Air head	Wrap	656	100%
	Al amo Street	Condiment Pack	120	100%
	Albertsons	Bag	279	56%
		Grocery Bag	224	44%
	Allsup s	Wrap	321	100%
	Al mond Joy	Wrap	835	100%
	Ameri can Ice	Ice Bag	259	100%
	Arbys	Bag	203	100%
	Arcti c Ice	Ice Bag	196	100%
	Austin Quality	Wrap	251	100%
	Bake- Ens	Wrap	51	100%
	Baski n Robbins	Container	61	100%
	Ben & Jerrys	Container	56	100%
	Bi g Red	Gum Wrap	258	100%
	Bill Miller	Bag	241	71%
		Beverage Cup	99	29%
	Bills	Bag	92	100%
	Bi mbo	Wrap	331	100%
	Bi t- 0- Honey	Wrap	120	100%
	Bl ow Pop	Gum Wrap	405	100%



Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Blue Bell	Container	249	10%
		Food Tray	63	2.6%
		Lid	146	6.0%
		Wrap	1992	81%
	Blue Bird	Wrap	194	100%
	Blue Bunny	Wrap	358	100%
	Bon Appetite	Wrap	707	100%
	Brachs	Wrap	710	100%
	Braums	Bag	180	29%
		Wrap	447	71%
	Brookshire	Bag	267	100%
	Bubblicious	Gum Wrap	198	100%
	Buddin	Wrap	351	100%
	Bueno	Wrap	345	100%
	Bugles	Wrap	93	100%
	Burger King	Bag	1280	9.4%
		Beverage Cup	3201	24%
		Condiment Pack	1205	8.8%
		Cup Lid	634	4.7%
		Food Tray	148	1.1%
		Wrap	7148	52%
	Butterfinger	Wrap	1549	100%
	Campbells	Can	77	100%
	Carls Jr	Food Tray	351	50%
		Wrap	355	50%
	Casa Solana	Condiment Pack	71	100%
	Charms	Gum Wrap	188	45%
Wrap		234	55%	
Checkers	Foil	92	100%	
Chee-tos	Bag	214	8.2%	
	Wrap	2389	92%	

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Cheese Nips	Wrap	58	100%
	Cherokee Ice	Ice Bag	665	100%
	Chesterfried	Bag	326	54%
		Food Tray	274	46%
	Chevron	Bag	564	100%
	Chex Mix	Wrap	377	100%
	Chick Fil-A	Bag	99	17%
		Condiment Pack	127	22%
		Drinking Straw Wra	61	11%
		Food Tray	187	33%
		Wrap	94	17%
	Chick-0-Stick	Wrap	219	100%
	Chicken Express	Bag	63	38%
		Wrap	103	62%
	Chilly Dilly	Bag	275	76%
		Wrap	85	24%
	Chucky Cheese	Bag	120	100%
	Churchs Chicken	Bag	184	5.4%
		Beverage Cup	935	27%
		Condiment Pack	677	20%
		Drinking Straw Wra	73	2.1%
		Food Tray	504	15%
		Wrap	1052	31%
	Circle K	Bag	188	100%
	Clear & Pure	Ice Bag	183	100%
	Clear And Pure	Ice Bag	259	100%
	Clear Cube Ice	Ice Bag	134	100%
	Clorets	Gum Wrap	63	100%
	Clouds	Wrap	92	100%
	Combos	Wrap	334	100%
	Corn Cob	Food	143	100%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Corn Nuts	Bag	143	23%
		Wrap	471	77%
	Cows	Wrap	321	100%
	Cracker Jacks	Wrap	63	100%
	Cream of Wheat	Wrap	120	100%
	Crossroads Deli	Wrap	120	100%
	Crown Royal	Tissue/Towel	92	100%
	Crystal Clear	Ice Bag	190	100%
	Crystal Ice	Ice Bag	163	100%
	Dairy Queen	Bag	603	8.7%
		Beverage Cup	2463	35%
		Condiment Pack	908	13%
		Cup Lid	681	9.8%
		Tissue/Towel	296	4.3%
		Wrap	1992	29%
	Dannon	Food Tray	296	100%
	Dave & Busters	Tissue/Towel	61	100%
	Debes Ice	Ice Bag	92	100%
	Deli Express	Wrap	504	100%
	Dennys	Bag	92	56%
		Beverage Cup	71	44%
	Dentyne	Gum Wrap	1835	100%
	Diamond Shamrock	Bag	63	100%
	Dole	Wrap	63	100%
	Dollar General	Bag	180	100%
	Dolly Madison	Wrap	650	100%
	Domino's	Coupon	89	100%
	Doritos	Bag	1189	16%
		Wrap	6018	84%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Double Bubble	Gum Wrap	717	100%
	Dreyers	Wrap	92	100%
	Dum Dum	Wrap	188	100%
	Dunkin Donuts	Bag	188	28%
		Wrap	489	72%
	Easy Mart	Bag	92	56%
		Ice Bag	71	44%
	Eclipse	Gum Wrap	296	100%
	El Chico	Beverage Cup	296	76%
		Menu	92	24%
	Eli Banks Farms	Corrugated Box	61	100%
	Famous Star	Wrap	77	100%
	Farleys	Wrap	150	100%
	Fernandos	Wrap	99	100%
	Fiesta	Wrap	56	100%
	Fiesta Mart	Grocery Bag	92	100%
	Fisher	Wrap	63	100%
	Ford	Bag	175	100%
	Fosters	Wrap	203	100%
	Frenches	Condiment Pack	60	100%
	Fresh	Wrap	180	100%
	Fresh Popcorn	Bag	92	59%
		Food Tray	63	41%
	Fri go	Wrap	99	100%
	Fri o Ice	Ice Bag	75	100%
	Frito Lay	Bag	430	2. 7%
		Can	75	0. 5%
Wrap		15528	97%	

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Frosty Acres	Condiment Pack	56	23%
		Wrap	188	77%
	Fruit & Grain	Wrap	1069	100%
	Fruit Rollup	Wrap	425	100%
	Funyuns	Wrap	436	100%
	General Mills	Wrap	486	100%
	Gold Leaf	Bag	351	100%
	Golden Chick	Bag	224	100%
	Golden Royal	Container	292	100%
	Good Day	Carton	86	100%
	Good Eats	Wrap	73	100%
	Good Humor	Wrap	351	100%
	Gourmet	Condiment Pack	234	100%
	Grande	Food Tray	65	100%
	Grandmas Cookies	Wrap	1807	100%
	Grandys	Beverage Cup	231	40%
		Bottle	188	33%
		Condiment Pack	63	11%
		Tissue/Towel	92	16%
	HEB	Bag	367	11%
		Can	344	10%
		Food Tray	63	1.9%
		Grocery Bag	2325	71%
		Wrap	196	6.0%
	HI - C	Wrap	40	100%
	Hefty	Bag	356	100%
	Heinz	Condiment Pack	1941	100%
	Hersheys	Wrap	3401	100%
	Hill Country Fair	Wrap	449	100%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Hostess	Food Tray	92	4.7%
		Wrap	1865	95%
	Hot Tamales	Wrap	163	100%
	Hunts	Condiment Pack	520	64%
		Pudding	188	23%
		Wrap	99	12%
	Hy-Top	Wrap	285	100%
	IGA	Container	180	100%
	Ice Breakers	Gum Wrap	321	100%
	Ice Maid	Ice Bag	75	100%
	International	Condiment Pack	180	100%
	Jack Links	Wrap	222	100%
	Jack in the Box	Bag	1139	8.3%
		Beverage Cup	4701	34%
		Condiment Pack	2706	20%
		Cup Lid	572	4.2%
		Food Tray	479	3.5%
		Receipt	237	1.7%
		Wrap	3953	29%
	Jolly Rancher	Wrap	1326	100%
	Juicy Fruit	Gum Wrap	61	100%
	Junior Mints	Wrap	271	100%
	Keebler	Wrap	788	100%
	Kelloggs	Bag	190	18%
		Wrap	849	82%
	Kentucky Fried Chi	Bag	89	8.5%
		Beverage Cup	359	35%
		Food Tray	229	22%
		Wrap	362	35%
	King B	Wrap	351	100%
	Kit Kat	Wrap	1275	100%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Kl ondi ke	Wrap	168	100%
	Kraft	Bag	296	33%
		Coupon	203	23%
		Label	296	33%
		Wrap	95	11%
	Kroger	Wrap	61	100%
	Kudos	Wrap	74	100%
	La Princesa	Wrap	64	100%
	Lance	Wrap	2601	100%
	Lays	Bag	300	35%
		Wrap	563	65%
	Li bbys	Can	285	100%
	Li fesavers	Bag	89	61%
		Wrap	56	39%
	Little Caesars	Coupon	71	49%
		Fli er/Catal og	74	51%
	Little Debbie	Wrap	2035	100%
	Little Joe	Bag	75	100%
	Lone Star	Bag	366	100%
	Long John Silvers	Beverage Cup	224	29%
		Food Tray	92	12%
		Wrap	453	59%
	Lowes	Bag	188	100%
	Lowreys	Wrap	233	100%
	Lubys	Beverage Cup	203	100%
	Lunchabl es	Food Tray	188	30%
		Wrap	439	70%
	M & M	Wrap	3775	100%
	Mars	Wrap	1286	100%

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Mazzi os	Beverage Cup	92	100%
	McDonal ds	Bag	3629	11%
		Beverage Cup	9145	29%
		Carton	71	0. 2%
		Condiment Pack	4214	13%
		Cup Lid	846	2. 6%
		Cup and Straw	99	0. 3%
		Food Tray	3738	12%
		Receipt	167	0. 5%
		Ti ssue/Towel	270	0. 8%
		Toy	61	0. 2%
		Utensil	92	0. 3%
	Wrap	9656	30%	
	Mentos	Wrap	61	100%
	Mike & Ikes	Wrap	321	100%
	Milk Duds	Wrap	174	100%
	Milky Way	Wrap	903	100%
	Mi racle Whip	Container	63	100%
	Moon Pie	Wrap	337	100%
	Mounds	Wrap	516	100%
	Mrs Sullivan	Wrap	64	100%
	Mrs. Baird	Bag	1373	23%
		Food Tray	285	4. 9%
		Wrap	4184	72%
	Mrs. Freshleys	Wrap	183	100%
	Nabi sco	Bag	308	16%
		Carton	77	4. 0%
		Gum Wrap	64	3. 3%
		Wrap	1490	77%
	Nature Valley	Wrap	285	100%
	Nestle	Wrap	4383	100%
	Now & Later	Wrap	352	100%
	Nuway	Bag	172	100%



Litter Use	Brand Code	Item Code	Tally Count	%	
FOOD	Oberts	Wrap	63	100%	
	Old New England	Wrap	346	100%	
	Olive Garden	Beverage Cup	71	100%	
	On The Border	Receipt	245	100%	
	Owens	Wrap	120	100%	
	Pal	Gum Wrap	73	100%	
	Parade	Bag	417	100%	
	Partner Cafe	Beverage Cup	75	100%	
	Pearl	Wrap	61	100%	
	Pemmi can	Wrap	51	100%	
	Pepperidge Farm	Wrap	63	100%	
	Pepsi	Food Tray	773	100%	
	Peter Paul	Wrap	1888	100%	
	Peter Piper	Bag	120	100%	
	Pic A Dilly	Wrap	180	100%	
	Pillsbury	Carton	175	100%	
	Pinata	Wrap	283	100%	
	Pizza Hut		Beverage Cup	92	11%
			Food Tray	355	44%
			Pizza Box	164	20%
			Receipt	99	12%
			Wrap	99	12%
	Pizza Inn	Beverage Cup	95	100%	
	Pizza Roma	Form	89	100%	
	Planters		Container	99	1.9%
			Wrap	5204	98%
Polar Ice	Ice Bag	364	100%		

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Popeyes	Beverage Cup	899	50%
		Cup Lid	99	5.5%
		Food Tray	155	8.7%
		Wrap	630	35%
	Power Bar	Wrap	1290	100%
	Prevos	Bag	94	100%
	Pringles	Can	473	34%
		Container	441	31%
		Wrap	488	35%
	Pure Ice	Ice Bag	1424	100%
	Quaker	Wrap	757	100%
	Race Trac	Bag	56	100%
	Reddy Ice	Ice Bag	5601	97%
		Tissue/Towel	180	3.1%
	Reeses	Wrap	5563	100%
	Regal	Wrap	351	100%
	Ring Pop	Wrap	99	100%
	Roberts	Wrap	95	100%
	Roegel ein	Wrap	229	100%
	Rold Gold	Wrap	646	100%
	Rudol fs	Wrap	99	100%
	Ruffles	Wrap	1407	100%
	Rustlers	Wrap	244	100%
	Ruters	Wrap	51	100%
	Sac & Save	Bag	71	100%
	Salsa Del Sol	Condiment Pack	75	100%
	Sams	Drink Pouch	2553	100%
Sara Lee	Bag	203	68%	

Litter Use	Brand Code	Item Code	Tally Count	%	
FOOD	Sara Lee	Cardboard	94	32%	
	Sathers	Wrap	285	100%	
	Sav- A- Lot	Bag	180	100%	
	Schl otzskys	Wrap	99	100%	
	Shamrock	Ice Bag	71	100%	
	Shi pley Donuts	Bag	352	100%	
	Si scos	Condiment Pack	197	100%	
	Skittles	Wrap	95	100%	
	Slim Fast	Wrap	484	100%	
	Slim Jim	Wrap	2953	100%	
	Smoothie King	Wrap	175	100%	
	Snickers	Wrap	9160	100%	
	Snyders	Wrap	100	100%	
	Sonic	Bag		368	3. 4%
		Beverage Cup		3156	29%
		Condiment Pack		1739	16%
		Coupon		92	0. 8%
		Cup Lid		2550	23%
		Drinking Straw Wra		61	0. 6%
		Flier/Catalog		203	1. 9%
		Foam		142	1. 3%
		Food Tray		143	1. 3%
		Wrap		2428	22%
	Sour Pops	Wrap	92	100%	
	Sour Punch	Wrap	172	100%	
	Sparkle	Ice Bag	203	100%	
	Sparkling	Ice Bag	56	100%	
Sparkling Ice	Ice Bag	237	100%		
Specks	Bag	275	100%		

Litter Use	Brand Code	Item Code	Tally Count	%	
FOOD	Speedy Ice	Ice Bag	92	100%	
	Starbucks	Beverage Cup	63	100%	
	Starburst	Wrap	992	100%	
	Stars	Wrap	439	100%	
	Subway	Bag		288	6.6%
		Beverage Cup		2790	64%
		Cup Lid		315	7.3%
		Tissue/Towel		455	10%
		Wrap		490	11%
	Sun-Maid	Wrap	201	100%	
	Sunbelt	Wrap	64	100%	
	Super Bubble	Gum Wrap	278	100%	
	Sven Hards	Wrap	61	100%	
	Sysco	Condiment Pack	469	100%	
	Taco Bell	Bag		353	4.3%
		Beverage Cup		2539	31%
		Condiment Pack		1621	20%
		Cup Lid		64	0.8%
		Food Tray		233	2.8%
		Receipt		56	0.7%
		Wrap		3333	41%
	Taco Cabana	Bag		222	12%
		Beverage Cup		782	42%
		Condiment Pack		222	12%
		Container		196	11%
		Food Tray		439	24%
	Taco Delite	Beverage Cup	92	100%	
	Texaco	Bag	767	100%	
	Texas Burger	Wrap	172	100%	
	Three Musketeers	Wrap	1605	100%	
	Tic Tacs	Container	285	100%	
Tiger Mart	Tissue/Towel	71	100%		

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Tillamook	Wrap	61	100%
	Time Wise	Ice Bag	351	100%
	Tombstone	Wrap	61	100%
	Toms	Wrap	1356	100%
	Toms Ribs	Receipt	100	100%
	Tootsie Roll	Wrap	1425	100%
	Tostitos	Wrap	73	100%
	Total	Ice Bag	203	100%
	Totinos	Pizza Box	188	100%
	Totito	Wrap	234	100%
	Town and Country	Bag	393	100%
	Trails Best	Wrap	442	100%
	Trident	Gum Wrap	556	100%
	Turtles	Wrap	92	100%
	Twix	Wrap	777	100%
	Twizzlers	Wrap	172	100%
	Tx Sweet	Bag	75	100%
	Tyler Ice	Ice Bag	175	100%
	Tylers	Ice Bag	285	100%
	Unknown	Apple		94
Bag			21841	14%
Bottle Cap			393	0.3%
Box Piece			366	0.2%
Can			1297	0.8%
Carton			197	0.1%
Condiment Pack			4809	3.1%
Container			65	0.0%
Corrugated Box Pie			1183	0.8%
Foil			6199	4.1%
Food Tray		7354	4.8%	

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Unknown	Grocery Bag	120	0.1%
		Gum Wrap	1050	0.7%
		Ice Bag	2474	1.6%
		Label	196	0.1%
		Paper Pieces	9226	6.0%
		Plastic Pieces	1508	1.0%
		Plate	1678	1.1%
		Tag	234	0.2%
		Tissue/Towel	60016	39%
		Unknown	840	0.5%
		Utensil	1813	1.2%
		Wrap	29865	20%
		Van Camps	Can	175
Van Holtons	Wrap	285	100%	
Wal-Mart	Bag	2368	95%	
	Ice Bag	113	4.6%	
Warheads	Wrap	261	100%	
Wendys	Bag	769	7.5%	
	Beverage Cup	2913	29%	
	Condiment Pack	1597	16%	
	Cup Lid	308	3.0%	
	Drinking Straw Wra	60	0.6%	
	Food Tray	811	7.9%	
	Wrap	3747	37%	
Whataburger	Bag	2148	14%	
	Beverage Cup	2988	20%	
	Carton	75	0.5%	
	Condiment Pack	3469	23%	
	Cup Lid	2243	15%	
	Food Tray	1018	6.7%	
	Wrap	3244	21%	
Whoppers	Bag	77	20%	
	Wrap	318	80%	
Wiener Snitzel	Condiment Pack	92	100%	
Wilsons	Wrap	92	100%	
Wissoll	Wrap	63	100%	
Wonkas	Wrap	1399	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
FOOD	Worlds Oven	Bag	180	100%
	Wrigleys	Gum Wrap	11547	88%
		Tissue/Towel	1504	12%
	Yoplait	Container	61	22%
		Food Tray	63	22%
		Wrap	159	56%
	York	Wrap	120	100%
	Young And Young	Wrap	95	100%
	Ziploc	Bag	749	100%

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	3M	Package	61	40%
		Sandpaper	92	60%
	Advil	Medicine Container	421	85%
		Pill Container	77	15%
	Aearo	Ear Protection	92	100%
	American Dream	Bag	77	100%
	Anchor	Carton	99	100%
	Avent	Bottle	75	100%
	B. C. Powder	Medicine Container	363	100%
	Banana Boat	Container	64	100%
	Bass Pro Shop	Container	296	100%
	Bayer	Medicine Container	78	100%
	Becton	Medicine Dropper	188	100%
	Benadryl	Carton	100	100%
	Blistex	Carton	100	100%
	Blue Oyster	Match Book	71	100%
	Boomer	Fire Cracker	63	100%
	Bounty	Cardboard	74	0.6%
		Tissue/Towel	11979	99%
	Brawny	Plastic	92	100%
	Carmex	Medicine Container	246	100%
	Charmin	Bag	275	100%
	Charms	Tissue/Towel	33656	100%
	Chevron	Match Book	61	100%



Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Circle K	Bag	321	100%
	Clicks	Match Book	78	100%
	Clorox	Label	188	100%
	Columbia House	CD	92	100%
	Comet Cleaners	Bag	89	100%
	Compact	Cardboard	120	100%
	Crest	Carton	64	100%
	Curb	CD	63	100%
	Diamond	Match Book	183	100%
	Dixie	Packing Material	155	100%
	Dollar General	Bag	229	79%
		Medicine Container	63	21%
	Dollar Tree	Bag	85	100%
	Eagle Electric	Bag	89	100%
	Etienne	Cardboard	94	100%
	Extreme	Health Item	296	100%
	FILA	Shoe	226	75%
		Shoe Lace	75	25%
	FanFair	Cardboard	94	100%
	Fargo	Package	155	100%
	Fibatape	Cardboard	482	100%
	Fischer Price	Toy	90	100%
	Floral Lite	Package	64	100%
	Frontline	Container	203	100%
	GAP	Label	65	40%
		Pants	100	60%

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Gates	Carton	74	100%
	General Electric	Cardboard	241	100%
	Glad	Corrugated Box	63	100%
	Gulf Lite	Can	188	100%
	HEB	Carton	86	12%
		Container	304	43%
		Medicine Container	212	30%
		Pen	99	14%
	Halls	Medicine Container	308	100%
	Hamilton Beach	Container	175	100%
	Hanes	Bag	99	30%
		Shirt	226	70%
	Home Interiors	Corrugated Box	75	100%
	Hoover	Bag	120	100%
	Husky	Bag	94	100%
	Igloo	Cooler Pieces	879	100%
	Instapack	Packing Material	241	100%
	Jam	Sun Lotion	71	100%
	Jhirmack	Bottle	92	100%
	K-Mart	Grocery Bag	94	100%
	Kleenex	Container	63	100%
	Kodak	Cardboard	99	34%
		Carton	188	66%
	Levi s	T- Shirt	180	100%
	Levi ton	Bag	94	100%
	Li fe	Carton	95	100%
Li festyles	Carton	71	40%	
	Condom Pack	107	60%	

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Lil Gator	Carton	92	100%
	Marlboro	Paper Pieces	180	100%
	Mary Kay	Container	63	100%
	Max Brand	Medicine Container	63	100%
	Metabolife	Medicine Container	193	100%
	Methadone	Medicine Container	63	100%
	Mini Brands	Medicine Container	64	100%
	Mini Thin	Medicine Container	92	100%
	Miracle Soap	Bottle	85	100%
	Nicole Collection	Bag	99	100%
	Nike	Shorts	71	100%
	No Doze	Medicine Container	170	100%
	Norinco	Carton	351	100%
	Ohio Blue Tip	Match Book	71	100%
	Oral - B	Health Item	275	100%
	Panasonic	Carton	241	100%
	Playskool	Container	78	100%
	Poly-America	Cardboard	120	100%
	Power Block	Cardboard	89	100%
	PumpCo	Bag	89	100%
	Queen Helene	Container	188	100%
	Rain Bird	Bag	89	100%
	Red Label	Medicine Container	56	100%
	Remington	Packing Material	71	100%
	Rivortril	Medicine Container	73	100%

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Royal Botanica	Carton	64	100%
	Rubber Maid	Packing Material	71	100%
	Schafer	Cardboard	1747	95%
		Medicine Container	90	4.9%
	Scott	Bag	229	100%
	Sentinal	Box Piece	65	100%
	Soft Sheen	Bottle	71	100%
	Space Rescuer	Toy	73	100%
	Spawling	Container	203	100%
	Sure	Health Item	120	100%
	Sylvania	Cardboard	676	100%
	Teddi co	Bag	177	100%
	Tonka	Cardboard	86	100%
	Tri don	Carton	74	100%
	Trojan	Condom Pack	99	57%
		Condoms	75	43%
	Tropical Breeze	Condom Pack	63	100%
	Tums	Medicine Container	95	100%
	Tylenol	Medicine Container	897	92%
		Pill Container	77	7.9%
Ultra	Label	63	100%	
Unknown	Aerosol Can	188	0.1%	
	Aerosol Cap	296	0.1%	
	Air Mattress	142	0.0%	
	Aluminum Wrap	394	0.1%	
	Baby Nipple	482	0.1%	
	Bag	6691	1.8%	
	Baking Plate	86	0.0%	
	Balloon	296	0.1%	
	Bandana	382	0.1%	
	Baton	180	0.0%	

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Unknown	Bottle	301	0.1%
		Bow	281	0.1%
		Bubble Wrap	928	0.2%
		Bucket	94	0.0%
		CD Wrap	134	0.0%
		Camo Netting	285	0.1%
		Card	120	0.0%
		Cardboard	273342	73%
		Carpet	982	0.3%
		Carton	188	0.1%
		Cellophane Storage	441	0.1%
		Comb	691	0.2%
		Container	772	0.2%
		Container Pieces	915	0.2%
		Cooler Lid	655	0.2%
		Cooler Pieces	13092	3.5%
		Cough Drops	129	0.0%
		Credit Card	86	0.0%
		Cup Holder	120	0.0%
		Diaper	251	0.1%
		Dryer Sheet	340	0.1%
		Elastic	334	0.1%
		Fire Cracker	63	0.0%
		Fireworks	1557	0.4%
		Fluff	120	0.0%
		Foam	3245	0.9%
		Foil	2635	0.7%
		Garbage Bag (empty)	89	0.0%
		Garbage Bag (full)	107	0.0%
		Garment Bag	203	0.1%
		Gift Wrap	61	0.0%
		Glove	488	0.1%
		Hair Net	188	0.1%
		Hanger	294	0.1%
		Health Item	214	0.1%
		Hypodermic Needle	321	0.1%
		IV Bags	92	0.0%
		Lawn Chair Strap	92	0.0%
		Lid	86	0.0%
		Lighter	234	0.1%
		Match Book	287	0.1%
		Medicine Container	2098	0.6%
		Miscellaneous	723	0.2%
		Newspaper Bag	181	0.0%
		Nursing Pad	180	0.0%
		Packing Material	4636	1.2%
		Pants	278	0.1%
		Paper Pieces	19826	5.3%
		Pen	591	0.2%

Litter Use	Brand Code	Item Code	Tally Count	%
HOUSEHOLD/PERSONAL	Unknown	Photo	984	0.3%
		Pill Bottle	73	0.0%
		Plastic Pieces	10128	2.7%
		Plate	1489	0.4%
		Rag	1902	0.5%
		Ribbon	653	0.2%
		Shirt	1633	0.4%
		Shoe	298	0.1%
		Shoe Lace	92	0.0%
		Sock	651	0.2%
		Sponge	188	0.1%
		Spool of Thread	321	0.1%
		Tag	376	0.1%
		Tampon	642	0.2%
		Tape	150	0.0%
		Thermos Bottle	92	0.0%
		Tissue/Towel	7070	1.9%
		Toy	556	0.1%
		Twist Tie	172	0.0%
		Underwear	77	0.0%
		Unknown	648	0.2%
		Vinyl	181	0.0%
		Wallet	92	0.0%
		Wallpaper	155	0.0%
		Wash Cloth	363	0.1%
		Wrap	582	0.2%
		Wrapping Paper	3281	0.9%
			Vaseline Intensive	Health Item
	Visine	Carton	171	41%
		Container	61	15%
		Medicine Container	188	45%
	Wal-Mart	Bag	308	60%
		Grocery Bag	209	40%
	Walgreens	Bag	77	100%
	Weathermatic	Bag	89	100%
	Winchester	Carton	63	100%
	Www. Gamestop. Com	Bag	92	100%
	XHILERATION	Cardboard	94	100%
	Yellow Jacket	Medicine Container	75	100%

<b>Litter Use</b>	<b>Brand Code</b>	<b>Item Code</b>	<b>Tally Count</b>	<b>%</b>
<hr/>				
<b>HOUSEHOLD/PERSONAL</b>	<b>Zappi t</b>	<b>Corrugated Box Pie</b>	<b>296</b>	<b>100%</b>
	<b>Zi ploc</b>	<b>Bag</b>	<b>598</b>	<b>41%</b>
		<b>Cellophane Storage</b>	<b>859</b>	<b>59%</b>

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	180 Energy	Can	64	100%
	22z	Beverage Cup	229	100%
	7-El even	Beverage Cup	1976	86%
		Cup Lid	252	11%
		Soda Can	77	3.3%
	7-UP	Coupon	142	4.4%
		Soda Bottle	732	23%
		Soda Can	2342	73%
	A&W	Beverage Cup	65	2.7%
		Soda Bottle	305	12%
		Soda Can	2089	85%
	AT&T	Flier/Catalog	175	100%
	Aberfoyle	Bottle	251	100%
	Albertsons	Soda Can	188	100%
	All Sport	Bottle	354	100%
	American Fare	Bottle	285	100%
	Aquafina	Bottle	871	100%
	Arbys	Beverage Cup	593	100%
	Arizona	Bottle	61	44%
		Can	78	56%
	Barqs	Soda Can	295	100%
	Bengal	Beverage Cup	369	100%
	Best Western	Beverage Cup	64	100%
	Best Yet	Soda Bottle	188	100%
	Big Peach	Soda Bottle	99	100%
	Big Red	Soda Bottle	851	26%
		Soda Can	2451	74%
	Blue Ox	Can	89	100%
	Borden	Bottle	1544	90%



Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Borden	Carton	163	9.5%
	Braums	Beverage Cup	965	91%
		Cup Lid	95	9.0%
	Campbells	Bottle	71	100%
	Canada Dry	Soda Bottle	229	100%
	Capri Sun	Container	99	8.5%
		Drink Pouch	1062	92%
	Cartwright	Beverage Cup	143	100%
	Chek	Soda Can	95	100%
	Chevron	Beverage Cup	584	100%
	Circle K	Beverage Cup	762	90%
		Bottle	88	10%
	Citra	Soda Can	388	100%
	Clearly American	Bottle	285	100%
	Clover	Soda Bottle	73	100%
	Clover Valley	Soda Can	64	100%
	Coastal	Beverage Cup	78	100%
	Coca-Cola	Beverage Cup	3436	8.0%
		Bottle	394	0.9%
		Bottle Cap	129	0.3%
		Carton	233	0.5%
		Cup Lid	275	0.6%
		Label	355	0.8%
		Soda Bottle	9690	23%
		Soda Can	28508	66%
	Country Time	Bottle	473	73%
		Can	103	16%
		Soda Can	73	11%
Crossroads Deli	Beverage Cup	71	100%	
Crystal Clear	Ice Bag	95	100%	
DK	Bottle	99	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Dads Root Beer	Soda Can	92	100%
	Dansani	Bottle	1069	84%
		Water Jug	196	16%
	Dej aBl ue	Bottle	1405	71%
		Can	564	29%
	Di amond	Water Jug	92	100%
	Di amond Shamrock	Beverage Cup	75	100%
	Dol e	Bottle	353	73%
		Can	71	15%
		Label	63	13%
	Dr Hytop	Soda Can	58	100%
	Dr. B	Soda Bottle	99	41%
		Soda Can	143	59%
	Dr. Pepper	Beverage Cup	672	1. 9%
		Bottle	394	1. 1%
		Bottle Cap	161	0. 5%
		Cardboard Piece	1183	3. 3%
		Carton	99	0. 3%
		Cup and Straw	268	0. 8%
		Six Pack Container	416	1. 2%
		Soda Bottle	9398	26%
		Soda Can	22972	65%
	Easy Mart	Beverage Cup	71	100%
	Enfami l	Can	71	100%
	Everest	Beverage Cup	234	50%
		Bottle	78	17%
		Water Jug	153	33%
	Everyday	Beverage Cup	600	100%
	Exxon	Beverage Cup	136	100%
	Fanta	Soda Bottle	151	37%
		Soda Can	259	63%
	Farmers Bros.	Beverage Cup	275	100%
	Fol gers	Can	296	100%

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Fresca	Soda Bottle	86	100%
	Fruitiopia	Bottle	107	19%
		Soda Bottle	366	65%
		Soda Can	92	16%
	Fruitworks	Bottle	376	100%
	Gatorade	Bottle	3634	81%
		Label	865	19%
	Guzzler	Bottle	188	100%
	HEB	Beverage Cup	390	11%
		Soda Can	3113	86%
		Water Jug	99	2.7%
	HI-C	Bottle	226	57%
		Carton	99	25%
		Drink Pouch	71	18%
	Hawaiian Punch	Bottle	75	18%
		Can	200	48%
		Soda Bottle	66	16%
		Soda Can	71	17%
	Hill Country	Soda Can	292	100%
	Hill Country Fair	Bottle	75	8.3%
		Drink Pouch	220	24%
		Soda Bottle	75	8.3%
		Soda Can	532	59%
	Hy-Top	Soda Can	175	100%
	Hygeia	Bottle	78	100%
	Ice Mountains	Bottle	85	100%
	Icee	Beverage Cup	425	100%
	Jasons Deli	Beverage Cup	183	100%
	Jumex	Can	213	100%
	K-Mart	Soda Can	287	100%
	Kmix	Can	234	100%

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Kool Aid	Bottle	538	100%
	Libbys	Drink Pouch	75	100%
	Lipton	Bottle	610	48%
		Can	400	32%
		Soda Bottle	188	15%
		Soda Can	65	5.2%
	Loves	Beverage Cup	773	81%
		Bottle	180	19%
	Mellow Yellow	Soda Bottle	68	100%
	Minute Maid	Bottle	1187	32%
		Can	146	4.0%
		Drink Pouch	194	5.3%
		Soda Bottle	1032	28%
		Soda Can	1094	30%
	Mistic	Bottle	71	100%
	Mountain Dew	Can	203	3.3%
		Soda Bottle	2011	33%
		Soda Can	3891	64%
	Mountain Valley	Bottle	187	100%
	Mr. Pi bb	Soda Bottle	986	70%
		Soda Can	413	30%
	Mug Root Beer	Soda Bottle	285	60%
		Soda Can	188	40%
	Nehi	Bottle	226	54%
		Soda Bottle	196	46%
	Nesqui ck	Bottle	86	100%
	Nestea	Beverage Cup	135	6.3%
		Bottle	625	29%
		Bottle Cap	285	13%
		Can	547	26%
		Drink Pouch	129	6.1%
		Soda Bottle	253	12%
	Soda Can	155	7.3%	
Nestle	Bottle	196	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Ni ce	Soda Can	275	100%
	Oak Farm	Bottle	1913	89%
		Can	51	2.4%
		Carton	176	8.2%
	Ocean Spray	Bottle	107	19%
		Bottle Cap	384	69%
		Label	63	11%
	One Stop	Beverage Cup	180	100%
	Ozarka	Bottle	1665	84%
		Water Jug	321	16%
	Panera	Beverage Cup	71	100%
	Parrot Ice	Beverage Cup	696	100%
	Pepsi	Beverage Cup	538	4.1%
		Bottle	99	0.7%
		Can	203	1.5%
		Carton	61	0.5%
		Coupon	86	0.7%
		Soda Bottle	4123	31%
		Soda Can	8083	61%
	Petro	Beverage Cup	175	100%
	Phillips 66	Beverage Cup	184	100%
	Power Aid	Bottle	520	100%
	Praseks	Beverage Cup	78	100%
	Qui cki ck	Bottle	180	100%
	RC Cola	Soda Bottle	229	42%
		Soda Can	310	58%
	Ramada	Beverage Cup	285	100%
	Red Bull	Can	1162	100%
	Red Di amond	Bottle	180	100%
	Red Flash	Soda Bottle	243	67%
		Soda Can	120	33%

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Reddy Ice	Ice Bag	95	100%
	Rocky Top Root Bee	Soda Can	1234	100%
	Sams	Beverage Cup	180	6.8%
		Can	71	2.7%
		Carton	73	2.8%
		Soda Can	2327	88%
	Schepps	Carton	64	100%
	Shell	Cup Lid	234	100%
	Shepps	Bottle	434	100%
	Sidral Mundet	Soda Bottle	95	100%
	Sierra	Beverage Cup	183	100%
	Sierra Mist	Soda Bottle	149	36%
		Soda Can	261	64%
	Slice	Soda Can	95	100%
	Slim Fast	Can	538	100%
	Slusher Grusher	Beverage Cup	78	100%
	Snapple	Can	86	100%
	Sobe	Can	125	100%
	Sparkletts	Beverage Cup	63	47%
		Bottle	71	53%
	Sparkletts	Water Jug	203	100%
	Speedy Stop	Beverage Cup	78	100%
	Spirits	Beverage Cup	71	100%
	Sprite	Carton	351	5.2%
		Soda Bottle	2323	35%
		Soda Can	4056	60%
	Squeeze It	Bottle	188	100%
	Squincher	Drink Pouch	78	100%

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Squirt	Soda Can	92	100%
	Stars & Stripes	Soda Can	220	100%
	Suava Java	Beverage Cup	174	100%
	Sun Mart	Beverage Cup	266	100%
	Sunkist	Bottle	73	3.2%
		Carton	61	2.7%
		Six Pack Container	92	4.0%
		Soda Bottle	567	25%
		Soda Can	1495	65%
	Sunny Delight	Bottle	448	74%
		Can	63	10%
		Label	95	16%
	Sweetheart	Cup Lid	748	100%
	Tang	Drink Pouch	180	100%
	Tasters Choice	Lid	188	100%
	Tex-Best	Beverage Cup	77	100%
	Texaco	Beverage Cup	958	100%
	Tiger Mart	Beverage Cup	92	100%
	Town and Country	Beverage Cup	1269	100%
	TreeTop	Can	100	100%
	Tropi cana	Bottle	92	23%
		Drink Pouch	308	77%
	Unknown	Beverage Cup	75220	44%
		Bottle	9379	5.5%
		Bottle Cap	6413	3.8%
		Carton	308	0.2%
		Container	63	0.0%
		Cup Lid	35902	21%
		Cup and Straw	498	0.3%
		Drinking Straw	28327	17%
		Drinking Straw Wra	851	0.5%
		Lid	591	0.3%
		Paper Pieces	1825	1.1%
		Photo	95	0.1%

Litter Use	Brand Code	Item Code	Tally Count	%
NONALCOHOLIC BEVERAGE	Unknown	Pull Tab	296	0.2%
		Six Pack	155	0.1%
		Six Pack Ring	1837	1.1%
		Soda Bottle	6747	3.9%
		Soda Can	1476	0.9%
		Water Jug	858	0.5%
		V-8	Bottle	855
		Can	71	7.2%
		Soda Can	68	6.8%
	Vernors	Soda Can	71	100%
	Wal - Mart	Beverage Cup	155	40%
		Water Jug	229	60%
	Weinersnitzel	Beverage Cup	78	100%
	Welches	Container	92	33%
		Soda Can	188	67%
	Whoop	Can	71	100%
	Yoo Hoo	Bottle Cap	188	33%
		Label	188	33%
		Soda Can	188	33%
	Zua Gua	Bottle	75	100%



Litter Use	Brand Code	Item Code	Tally Count	%
OTHER	Big Shot	Label	63	100%
	Boomer	Carton	63	100%
	Diamond Sparkler	Carton	92	100%
	Sparkler	Carton	285	100%
	Unknown	Carbon Paper	92	0.2%
		Paper Pieces	29775	73%
		Plastic Pieces	7735	19%
		Unknown	3111	7.6%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	3M	Label	391	68%
		Sticker	184	32%
	A-1 Limo	Card, Business	285	100%
	ADSMART	Newspaper	77	100%
	AT&T	Flier/Catalog	188	100%
	Able Auto	Card, Business	61	100%
	Ademco	Instructions	71	100%
	Alamo	Newspaper	457	100%
	Albertsons	Flier/Catalog	296	55%
		Receipt	241	45%
	Allstate Insurance	Receipt	351	100%
	Anchor	Label	99	100%
	Anco	Instructions	56	100%
	Apex	Label	99	100%
	Ara Insurance	Tag	61	100%
	Austin American St	Newspaper	234	100%
	Auto Glass Ctr	Memo	63	100%
	Auto Trader	Newspaper	74	100%
	Auto Vantage Gold	Mail	73	100%
	Auto Zone	Receipt	92	100%
	B & C Parts	Flier/Catalog	71	100%
	B-4 Auto Parts	Receipt	99	100%
	Bank Of America	Receipt	132	100%
	Banner Press	Newspaper	915	100%
	Best Buy	Receipt	61	100%
	Blessed Ac	Invoice	99	100%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Blockbuster	Receipt	370	100%
	Bowie	Mail	180	100%
	Bravo Beef	Newspaper	351	100%
	Brentwood	Label	99	100%
	Briggs Station	Label	99	100%
	Britney Spears	Flier/Catalog	120	100%
	Brookshire	Receipt	275	100%
	Brothers Food	Flier/Catalog	92	100%
	Burger King	Receipt	175	100%
	Cable Matic	Instructions	71	100%
	CarQuest	Magazine	296	100%
	Carrier A. C.	Flier/Catalog	64	100%
	Central Texas Iron	Label	120	100%
	Chevron	Receipt	224	100%
	City of McAllen	Receipt	220	100%
	City of Austin	Flier/Catalog	133	100%
	Coastal Transporta	Form	120	100%
	Columbia House	Mail	75	100%
	Compass Bank	Deposit Slip	99	100%
	Concentra	Card, Business	63	100%
	Container Store	Flier/Catalog	64	100%
	Cosmopolitan	Flier/Catalog	92	100%
	Cosolidated	Packing Slip	71	100%
	Crosslands Auto	Receipt	92	100%
	Custom Eyes	Receipt	188	100%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	DK	Tag	99	100%
	Dallas Mattress	Flier/Catalog	64	100%
	Dallas Morning News	Newspaper	503	89%
		Newspaper Bag	60	11%
	Dalwa	Instructions	296	50%
		Label	296	50%
	Dealt Steele	Tag	175	100%
	Decor	Tag	61	100%
	Dillard's	Packing Slip	175	100%
	Direct TV	Flier/Catalog	285	100%
	Discovery	Form	61	100%
	Disney	Coupon	285	100%
	Do It Best	Flier/Catalog	351	100%
	Don Dan Auto	Newspaper	188	100%
	Dream Works	Flier/Catalog	63	100%
	Ebony	Magazine	132	100%
	Eckerd Drugs	Receipt	366	100%
	Elkhart	Label	266	100%
	English Color	Invoice	64	100%
	Envelope-Grand Cas	Paper	275	100%
	Ev Salinas	Invoice	75	100%
	EvenFlo	Flier/Catalog	100	100%
	Eye Masters	Flier/Catalog	61	100%
	Fiesta Mart	Coupon	904	55%
		Packing Slip	452	28%
		Receipt	284	17%
	First State Bank	Receipt	180	100%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Fleetr ite	Tag	285	100%
	Foleys	Recei pt	203	100%
	Fort Worth	Newspaper	56	100%
	Freestyle	Coupon	376	100%
	Garden Ri dge	Fl ier/Catal og	188	100%
	Gartex	Invoi ce	188	100%
	General Foam/Plast	Tag	180	100%
	Golds Gym	Post Card	71	100%
	Goodi es	Fl ier/Catal og	85	100%
	Grande Butane	Recei pt	146	100%
	Green Sheet	Newspaper	386	84%
		Newspaper Bag	75	16%
	Grol ier	Mail	64	100%
	HEB	Fl ier/Catal og	218	17%
		Form	77	6. 0%
		Label	197	15%
		Recei pt	789	62%
	Hal i burton	Instructi ons	99	100%
	Hardi plank	Instructi ons	74	100%
	Harl ans	Fl ier/Catal og	99	100%
	Harris Co	Recei pt	61	100%
	Hobby Lobby	Recei pt	61	100%
	Home Depot	Recei pt	61	100%
	Home Essenti als	Label	188	100%
	Hometown Press	Newspaper	92	100%
	Houston Chronicle	Newspaper	372	100%
Idc	Tag	61	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	IRS	Mail	78	100%
	J. C. Cole & Son In	Mail	180	100%
	Janes Gravel	Receipt	63	100%
	Jay Rocks Gym	Flier/Catalog	64	100%
	Jazzercise	Paper Pieces	99	100%
	Jeffs Auto	Invoice	203	100%
	Joes Trans.	Card, Business	61	100%
	John Boos	Flier/Catalog	92	100%
	K-Mart	Receipt	61	100%
	Kelly Moore	Receipt	175	100%
	Kodak	Flier/Catalog Label	100 143	41% 59%
	Kroger	Flier/Catalog Receipt	188 71	73% 27%
	Lab Safety	Tag	382	100%
	Landmark	Invoice	351	100%
	Le High	Instructions	175	100%
	Leaf	Baseball Card	306	100%
	Leesville Bumper	Tag	275	100%
	Lincoln	Tag	78	100%
	Longview Temple	Flier/Catalog	95	100%
	Lou. Pac.	Label	92	100%
	Lowe's	Flier/Catalog	175	100%
	M&G Auto	Form	92	100%
	Magic	Memo	61	100%
	Mannington	Instructions	180	100%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Marks Man	Instructions	73	100%
	Masterlock	Tag	188	100%
	McCoys	Receipt	73	100%
	McFrugals	Flier/Catalog	175	100%
	Merchandise Center	Flier/Catalog	61	100%
	Mid Western	Label	180	100%
	Min Yard	Flier/Catalog	61	100%
	Moffat Intl.	Flier/Catalog	142	100%
	Motel 6	Receipt	163	100%
	Mr Speedy Auto	Invoice	92	100%
	Munrol	Memo	188	100%
	Napa Auto Parts	Label	60	100%
	Napco	Tag	180	100%
	Netelix	Label	120	100%
	Oak Hill Gazette	Newspaper	92	100%
	Ocean Spray	Label	89	100%
	Okay Brand	Tag	591	100%
	Old Navy	Flier/Catalog	71	28%
		Receipt	61	24%
		Tag	123	48%
	O' Reilly Auto	Receipt	71	100%
	Palmetco	Label	89	100%
	Parade	Label	63	100%
	Penske	Form	275	100%
	Petco	Receipt	61	100%
	PetsMart	Coupon	71	100%

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Pledge	Coupon	61	100%
	Polaris	Instructions	71	100%
	Post Properties	Flier/Catalog	71	100%
	Prime Protection	Flier/Catalog	120	100%
	Progressive	Mail	92	100%
	Quality Air Care	Flier/Catalog	64	100%
	Radio Shack	Receipt	95	100%
	Randalls	Coupon	452	73%
		Flier/Catalog	99	16%
		Receipt	71	11%
	Red Barn	Receipt	275	100%
	Rio Grande Mill	Mail	73	100%
	Ross	Receipt	61	20%
		Tag	245	80%
	Ryobi	Form	78	100%
	S. A. Express	Newspaper	371	100%
	Sams	Card, Business	92	100%
	Scott	Coupon	64	100%
	Scrap Metal	Invoice	180	100%
	Sears	Coupon	251	61%
		Flier/Catalog	92	22%
		Mail	71	17%
	Sesame St	Playing Cards	570	100%
	Sierra	Receipt	71	100%
	Simpson	Label	71	100%
	Six Flags	Coupon	71	14%
		Flier/Catalog	446	86%



Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Sony	Flier/Catalog	60	100%
	Southwestern Bell	Flier/Catalog	71	3.6%
		Mail	311	16%
		Phone Book	1382	69%
		Phonebook Page	92	4.6%
		Receipt	143	7.1%
	Spiral Lite	Label	64	100%
	Sprint	Flier/Catalog	220	100%
	Stanley	Instructions	74	100%
	State of Texas	Lottery Ticket	37368	96%
		Receipt	1517	3.9%
		Ticket	160	0.4%
	Tampax	Instructions	99	100%
	Texarkana Gazzette	Newspaper	92	100%
	Texas Bank	Mail	63	100%
	Texas Life	Magazine	321	100%
	The Trolly	Flier/Catalog	71	100%
	Thompson Constructi	Packing Slip	155	100%
	Thrifty Call	Flier/Catalog	99	100%
	Thrifty Nickel	Newspaper	163	100%
	Time Warner Cable	Form	120	100%
	Tom Thumb	Flier/Catalog	71	100%
	Town Square	Flier/Catalog	71	100%
	Toyo Tire	Label	71	100%
	Trans Star Met.	Receipt	71	100%
	Tri Gas	Tag	71	100%
	Tx Liability Auto	Form	92	100%
	Tx4	Mail	61	100%

Litter Use	Brand Code	Item Code	Tally Count	%	
PRINTED	US Brick	Tag	351	100%	
	US Postal Service	Receipt	180	100%	
	Ub Rich	Card, Business	61	100%	
	Union Fidelity	Mail	61	100%	
	United Rental	Tag	89	100%	
	Universal Products	Label	92	100%	
	Unknown	Book		171	0.3%
		Card		2101	3.5%
		Card, Business		1120	1.9%
		Coloring Book		196	0.3%
		Corrugated Card Bo		180	0.3%
		Coupon		277	0.5%
		Flier/Catalog		2936	5.0%
		Form		4941	8.3%
		Instructions		4467	7.5%
		Invoice		417	0.7%
		Label		5081	8.6%
		Magazine		712	1.2%
		Mail		2408	4.1%
		Memo		2155	3.6%
		Newspaper		4816	8.1%
		Newspaper Bag		143	0.2%
		Note Pad		366	0.6%
		Packing Slip		865	1.5%
		Paper		1083	1.8%
		Paper Pieces		18037	30%
	Pornography		188	0.3%	
	Receipt		3244	5.5%	
	Tag		2481	4.2%	
	Tape Insert		95	0.2%	
	Ticket		271	0.5%	
	Unknown		504	0.9%	
	Upco	Tag	180	100%	
Viking	Label	75	100%		
Waco Tribune	Newspaper	10351	100%		
Wal-Mart	Bag	296	23%		
	Flier/Catalog	188	14%		
	Label	296	23%		
	Receipt	439	33%		

Litter Use	Brand Code	Item Code	Tally Count	%
PRINTED	Wal - Mart	Tag	95	7.2%
	Wal greens	Flier/Catalog	593	100%
	Walker	Label	180	100%
	Wells Fargo	Mail	63	100%
	White Lightning	Label	229	100%
	Witch Equit.	Receipt	71	100%
	Www. Dal. Chinese	Newspaper	64	100%
	York Ice Mac.	Flier/Catalog	71	100%
	Zep	Card, Business	120	100%

Litter Use	Brand Code	Item Code	Tally Count	%
TOBACCO	#40	Cigar Box	56	100%
	Basic	Cigarette Pack	4339	100%
	Beech-Nut	Chewing Tobacco	71	100%
	Benson & Hedges	Cigarette Butt	1464	48%
		Cigarette Pack	1566	52%
	Black & Mild	Cigar Box	776	89%
		Cigar Butt	93	11%
	Bud Light	Cigarette Pack	188	100%
	Cambridge	Cigarette Butt	71	26%
		Cigarette Pack	206	74%
	Camel	Cigarette Butt	5115	58%
		Cigarette Pack	3639	42%
	Camel Lights	Cigarette Pack	344	100%
	Capri	Cigarette Pack	64	100%
	Carlton	Cigarette Pack	285	100%
	Carnival	Cigarette Pack	92	100%
	Copenhagen	Snuff	1479	100%
	Cougar	Chewing Tobacco	61	25%
		Snuff	188	75%
	Country Blend	Snuff	71	100%
	DK	Chewing Tobacco	196	100%
	Doral	Cigarette Butt	42418	83%
		Cigarette Carton	143	0.3%
		Cigarette Pack	8408	16%
	Durango	Chewing Tobacco	243	100%
	Durant	Cigarette Pack	78	100%
	Eclipse	Cigarette Pack	63	100%
	Epic	Cigarette Pack	464	100%

Litter Use	Brand Code	Item Code	Tally Count	%
TOBACCO	First Class	Cigarette Pack	92	100%
	G Smokes	Cigarette Pack	188	100%
	GPC	Cigarette Butt	773	31%
		Cigarette Pack	1567	62%
		Snuff	188	7.4%
	Golden Elk	Chewing Tobacco	188	100%
	Grenadiers	Cigar Box	95	100%
	Hb	Cigarette Pack	188	100%
	Hydri on	Cigarette Papers	78	100%
	K00L	Cigarette Butt	3274	51%
		Cigarette Pack	3200	49%
	K00L 100s	Cigarette Pack	292	100%
	Kent	Cigarette Pack	344	100%
	King Edward	Cigar Box	188	100%
	Liggett Select	Cigarette Pack	542	100%
	Lucky Strike	Cigarette Butt	377	55%
		Cigarette Pack	309	45%
	Main Street	Cigarette Pack	976	100%
	Mari di on	Cigarette Pack	78	100%
	Marlboro	Cigar Butt	1899	1.2%
		Cigarette Butt	132806	83%
		Cigarette Carton	371	0.2%
		Cigarette Pack	25258	16%
	Marlboro 100s	Cigarette Butt	1464	65%
		Cigarette Pack	782	35%
	Marlboro Lights	Cigarette Butt	12693	36%
		Cigarette Pack	22880	64%
	Marlin	Cigarette Pack	61	100%
	Marlin 100S	Cigarette Pack	188	100%

Litter Use	Brand Code	Item Code	Tally Count	%
TOBACCO	Maverick	Cigarette Butt	2380	76%
		Cigarette Pack	742	24%
	Meridian	Cigarette Pack	92	100%
	Merit	Cigarette Butt	8678	86%
		Cigarette Carton	271	2.7%
		Cigarette Pack	1151	11%
	Misty	Cigarette Pack	40	100%
	Monarch	Cigarette Pack	175	100%
	More	Cigarette Pack	377	100%
	Newport	Cigarette Butt	19829	84%
		Cigarette Pack	3719	16%
	Pall Mall	Cigarette Pack	936	100%
	Parliament	Cigarette Pack	363	100%
	Patriarch	Cigarette Pack	71	100%
	Patriot	Cigarette Pack	255	100%
	Pyramid	Cigarette Pack	100	100%
	Quality Cut	Chewing Tobacco	64	100%
	Red Man	Chewing Tobacco	63	100%
	Red Seal	Snuff	63	100%
	Regal	Cigarette Pack	75	100%
	Salem	Cigarette Butt	42278	97%
		Cigarette Pack	1474	3.4%
	Salem Ultra Light	Cigarette Pack	122	100%
	Select	Cigarette Pack	149	100%
	Shield	Cigarette Pack	63	100%
	Silver Creek	Snuff	92	100%
Skoal	Snuff	1416	100%	

Litter Use	Brand Code	Item Code	Tally Count	%
TOBACCO	Smoke 1	Cigarette Pack	462	100%
	Sport	Cigarette Pack	175	100%
	Swisher Sweet	Cigar Box	457	48%
		Cigar Butt	143	15%
		Cigarette Pack	351	37%
	TRUE	Cigarette Butt	129	100%
	USA	Cigarette Butt	10873	95%
		Cigarette Pack	565	4.9%
	USA Gold	Cigarette Pack	205	100%
	USA Gold 100s	Cigarette Pack	588	100%
	Ultra Buy	Cigarette Pack	180	100%
	Unknown	Chewing Tobacco	437	1.3%
		Cigar Butt	1692	5.0%
		Cigar Wrap	644	1.9%
		Cigarette Butt	25611	76%
		Cigarette Foil	155	0.5%
		Cigarette Pack	2585	7.7%
		Cigarette Papers	672	2.0%
		Container	642	1.9%
		Snuff	1345	4.0%
	Value Pride	Cigarette Pack	120	100%
	Vantage	Cigarette Butt	1926	100%
	Viceroy	Cigarette Pack	334	100%
	Virginia Slims	Cigarette Pack	585	100%
	Wilson's	Cigarette Pack	111	100%
	Winchester	Cigarette Pack	308	100%
	Winston	Cigarette Butt	6980	61%
		Cigarette Carton	92	0.8%
		Cigarette Pack	4419	38%
	Winston Lights	Cigarette Pack	155	100%
	Zig Zag	Cigarette Papers	370	100%



# ATTACHMENT 5: DETAILED LIST OF LITTER ITEMS

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Item Code	Tally Count	%
Cigarette Butt	319,138	14%
Cardboard	281,275	12%
Wrap	193,961	8.4%
Beer Can	137,455	6.0%
Beverage Cup	133,922	5.8%
Tissue/Towel	116,070	5.0%
Cigarette Pack	97,727	4.2%
Soda Can	91,019	4.0%
Paper Pieces	78,967	3.4%
Bag	63,628	2.8%
Plastic Pieces	62,244	2.7%
Cup Lid	45,818	2.0%
Soda Bottle	41,902	1.8%
Insulation	38,278	1.7%
Lottery Ticket	37,368	1.6%
Bottle	35,400	1.5%
Beer Bottle	32,877	1.4%
Drinking Straw	28,327	1.2%
Condiment Pack	27,372	1.2%
Newspaper	19,653	0.9%
Food Tray	18,459	0.8%
Gum Wrap	17,909	0.8%
Corrugated Box Piece	17,896	0.8%
Shop Rag	15,233	0.7%
Ice Bag	14,201	0.6%

Item Code	Tally Count	%
Cooler Pieces	13,970	0.6%
Label	13,234	0.6%
Receipt	12,611	0.5%
Packing Material	11,525	0.5%
Flier/Catalog	10,170	0.4%
Can	9,264	0.4%
Foil	8,926	0.4%
Bottle Cap	8,407	0.4%
Container	7,495	0.3%
Tag	7,317	0.3%
Carton	6,669	0.3%
Unknown	6,658	0.3%
Shotgun Shell	6,072	0.3%
Foam	6,050	0.3%
Form	6,005	0.3%
Instructions	5,993	0.3%
Beer Carton	5,763	0.3%
Medicine Container	5,733	0.2%
Drink Pouch	4,870	0.2%
Snuff	4,841	0.2%
Bottles- Broken	4,839	0.2%
Miscellaneous	4,832	0.2%
Measuring Tape	4,738	0.2%
Glove	4,535	0.2%

Item Code	Tally Count	%
Corrugated Card Boar	4,044	0.2%
Mail	3,852	0.2%
Cigar Butt	3,827	0.2%
Tire Parts	3,723	0.2%
Coupon	3,494	0.2%
Duct Tape	3,476	0.2%
Oil Container	3,413	0.1%
Plastic Sheets	3,305	0.1%
Wrapping Paper	3,281	0.1%
Plate	3,167	0.1%
Fiberglass	3,068	0.1%
Grocery Bag	3,064	0.1%
Rake	2,988	0.1%
Seat Belt	2,766	0.1%
Rubber	2,487	0.1%
Memo	2,467	0.1%
Liquor Bottle	2,396	0.1%
Card	2,221	0.1%
Water Jug	2,151	0.1%
Corrugated Box	2,099	0.1%
Card, Business	1,925	0.1%
Utensil	1,904	0.1%
Rag	1,902	0.1%
Strap	1,863	0.1%
Shirt	1,859	0.1%

Item Code	Tally Count	%
Roofing Felt	1,850	0.1%
Six Pack Ring	1,837	0.1%
Invoice	1,728	0.1%
Packing Slip	1,718	0.1%
Sandpaper	1,660	0.1%
Cigar Box	1,572	0.1%
Fireworks	1,557	0.1%
Feed Sack	1,467	0.1%
Magazine	1,461	0.1%
Auto Related	1,417	0.1%
Box Piece	1,388	0.1%
Phone Book	1,382	0.1%
Cardboard Piece	1,362	0.1%
Paper	1,357	0.1%
Plastic	1,326	0.1%
Chewing Tobacco	1,323	0.1%
Cellophane Storage B	1,300	0.1%
Carpet	1,170	0.1%
Auto Light	1,151	0.0%
Cigarette Papers	1,119	0.0%
Shingles	1,115	0.0%
Drinking Straw Wrapp	1,107	0.0%
Photo	1,079	0.0%
Reflector	1,076	0.0%

Item Code	Tally Count	%
Lid	1,074	0.0%
Sheet Rock	1,056	0.0%
Tape	1,031	0.0%
Health Item	1,025	0.0%
Sign	1,004	0.0%
Bubble Wrap	989	0.0%
Auto Air Freshener	985	0.0%
Funnel	974	0.0%
Container Pieces	915	0.0%
Plywood	906	0.0%
Cigarette Carton	877	0.0%
Cup and Straw	865	0.0%
Flag	847	0.0%
Bungee Cord	841	0.0%
Foam Block	785	0.0%
Toy	781	0.0%
Match Book	751	0.0%
License Plate	734	0.0%
Wire	700	0.0%
Comb	691	0.0%
Pen	690	0.0%
Cooler Lid	655	0.0%
Ribbon	653	0.0%
Sock	651	0.0%
Cement Bag	648	0.0%

Item Code	Tally Count	%
Road Part	646	0.0%
Cigar Wrap	644	0.0%
Tampon	642	0.0%
Buffer Pad	634	0.0%
Fiber Board	627	0.0%
Auto Trim	617	0.0%
Hub Cap	611	0.0%
Playing Cards	570	0.0%
Shoe	524	0.0%
Six Pack Container	508	0.0%
Foam Rubber	506	0.0%
Baby Nipple	482	0.0%
Aerosol Can	480	0.0%
Newspaper Bag	459	0.0%
Oil Rag	452	0.0%
Ticket	431	0.0%
Tie Down	429	0.0%
Tarp	403	0.0%
Aluminum Wrap	394	0.0%
Vinyl	387	0.0%
Bandana	382	0.0%
Package	378	0.0%
Pants	378	0.0%
Note Pad	366	0.0%

Item Code	Tally Count	%
Wash Cloth	363	0.0%
Auto Part	361	0.0%
Pizza Box	352	0.0%
Lumber	349	0.0%
Nylon Rope	345	0.0%
Dryer Sheet	340	0.0%
Elastic	334	0.0%
Hypodermic Needle	321	0.0%
Spool of Thread	321	0.0%
Metal Cap	309	0.0%
Mask	308	0.0%
Baseball Card	306	0.0%
Aerosol Cap	296	0.0%
Balloon	296	0.0%
Pull Tab	296	0.0%
Tile	296	0.0%
Hanger	294	0.0%
Camo Netting	285	0.0%
Bow	281	0.0%
Twine	275	0.0%
Hose	274	0.0%
Condom Pack	268	0.0%
Pipe	264	0.0%
Industrial Tape	261	0.0%
Caulk	252	0.0%

Item Code	Tally Count	%
Diaper	251	0.0%
Packing Tape	249	0.0%
Lighter	234	0.0%
Tinlid	229	0.0%
Bucket	225	0.0%
Industrial Can	219	0.0%
Gas Cap	212	0.0%
Garment Bag	203	0.0%
Utility Knife	203	0.0%
Coloring Book	196	0.0%
Pornography	188	0.0%
Hair Net	188	0.0%
Medicine Dropper	188	0.0%
Pudding	188	0.0%
Sponge	188	0.0%
PVC	185	0.0%
Linoleum	184	0.0%
Sticker	184	0.0%
Oil Filter	183	0.0%
T-Shirt	180	0.0%
Nursing Pad	180	0.0%
Baton	180	0.0%
Lip balm	175	0.0%
Twist Tie	172	0.0%

Item Code	Tally Count	%
Book	171	0.0%
Shoe Lace	167	0.0%
Cigarette Foil	155	0.0%
Six Pack	155	0.0%
Wallpaper	155	0.0%
CD	154	0.0%
Pill Container	154	0.0%
Food	143	0.0%
Air Mattress	142	0.0%
Plant Box	137	0.0%
CD Wrap	134	0.0%
Cough Drops	129	0.0%
Fire Cracker	125	0.0%
Auto Bumper	120	0.0%
Cup Holder	120	0.0%
Fluff	120	0.0%
Rope	120	0.0%
Garbage Bag (full)	107	0.0%
Lock	99	0.0%
Deposit Slip	99	0.0%
Garden Container	99	0.0%
Tape Insert	95	0.0%
Apple	94	0.0%
Fencing	94	0.0%
Steel drum Lid	93	0.0%

Item Code	Tally Count	%
Auto Headlamp Assemb	92	0.0%
Menu	92	0.0%
Pallet Strap	92	0.0%
Spark Plug Box	92	0.0%
Thermos Bottle	92	0.0%
Ear Protection	92	0.0%
Wallet	92	0.0%
Phonebook Page	92	0.0%
Lawn Chair Strap	92	0.0%
IV Bags	92	0.0%
Carbon Paper	92	0.0%
Garbage Bag (empty)	89	0.0%
Tools	89	0.0%
Baking Plate	86	0.0%
Credit Card	86	0.0%
Tire Rim	86	0.0%
Cement	78	0.0%
Underwear	77	0.0%
Condoms	75	0.0%
Pill Bottle	73	0.0%
Shorts	71	0.0%
Sun Lotion	71	0.0%
Post Card	71	0.0%
Nail Pouch	71	0.0%

<b>Item Code</b>	<b>Tally Count</b>	<b>%</b>
<b>Gift Wrap</b>	<b>61</b>	<b>0.0%</b>
<b>Screen</b>	<b>61</b>	<b>0.0%</b>
<b>Hard Hat</b>	<b>60</b>	<b>0.0%</b>
	<b>2301781</b>	<b>100%</b>



# **ATTACHMENT 6: DETAILED LIST OF LITTER BRAND NAMES**

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Brand Code	Tally Count	%
Unknown	1005037	44%
Marlboro	160,513	7.0%
Doral	50,968	2.2%
Salem	43,752	1.9%
Bud Light	43,558	1.9%
Coca-Cola	43,020	1.9%
State of Texas	39,116	1.7%
Marlboro Lights	35,573	1.5%
Dr. Pepper	35,562	1.5%
Charms	34,078	1.5%
Budweiser	33,235	1.4%
McDonalds	31,988	1.4%
Corning	28,215	1.2%
Newport	23,548	1.0%
Coors Light	22,175	1.0%
Miller Lite	19,357	0.8%
Frito Lay	16,034	0.7%
Whataburger	15,185	0.7%
Jack in the Box	13,990	0.6%
Pepsi	13,966	0.6%
Burger King	13,791	0.6%
Wrigleys	13,050	0.6%
Bounty	12,053	0.5%
Winston	11,491	0.5%
USA	11,438	0.5%

Brand Code	Tally Count	%
Sonic	10,882	0.5%
Natural Lite	10,704	0.5%
Waco Tribune	10,351	0.4%
Wendys	10,205	0.4%
Merit	10,100	0.4%
Keystone	9,381	0.4%
Snickers	9,160	0.4%
HEB	8,878	0.4%
Camel	8,754	0.4%
Busch	8,312	0.4%
Taco Bell	8,198	0.4%
Coors	7,749	0.3%
Doritos	7,207	0.3%
Dairy Queen	6,943	0.3%
Sprite	6,730	0.3%
KOOL	6,473	0.3%
Miller	6,402	0.3%
Winchester	6,357	0.3%
Mountain Dew	6,104	0.3%
Reddy Ice	5,875	0.3%
Mrs. Baird	5,842	0.3%
Reeses	5,563	0.2%
Planters	5,303	0.2%
Sams	5,296	0.2%



<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Wal - Mart	4, 695	0. 2%
Nestle	4, 579	0. 2%
Gatorade	4, 499	0. 2%
Basic	4, 339	0. 2%
Subway	4, 338	0. 2%
Reebok	4, 207	0. 2%
M & M	3, 775	0. 2%
Minute Maid	3, 653	0. 2%
Big Red	3, 560	0. 2%
Churchs Chicken	3, 426	0. 1%
Hersheys	3, 401	0. 1%
7- El even	3, 321	0. 1%
7-UP	3, 216	0. 1%
Milwaukee's Best	3, 180	0. 1%
Maverick	3, 122	0. 1%
Benson & Hedges	3, 030	0. 1%
Slim Jim	2, 953	0. 1%
Chee- tos	2, 603	0. 1%
Lance	2, 601	0. 1%
GPC	2, 528	0. 1%
A&W	2, 459	0. 1%
Blue Bell	2, 450	0. 1%
Sunkist	2, 287	0. 1%
Marlboro 100s	2, 246	0. 1%
Chevron	2, 242	0. 1%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Ziploc	2, 206	0. 1%
Southwestern Bell	2, 182	0. 1%
Oak Farm	2, 141	0. 1%
Nestea	2, 129	0. 1%
Little Debbie	2, 035	0. 1%
Ozarka	1, 986	0. 1%
DejaBlue	1, 968	0. 1%
Lone Star	1, 963	0. 1%
Hostess	1, 957	0. 1%
Heinz	1, 941	0. 1%
Nabisco	1, 940	0. 1%
Vantage	1, 926	0. 1%
Schafer	1, 924	0. 1%
Peter Paul	1, 888	0. 1%
Taco Cabana	1, 863	0. 1%
Dentyne	1, 835	0. 1%
Grandmas Cookies	1, 807	0. 1%
Popeyes	1, 782	0. 1%
Fiesta Mart	1, 732	0. 1%
Texaco	1, 725	0. 1%
Borden	1, 706	0. 1%
Braums	1, 687	0. 1%
Town and Country	1, 661	0. 1%
Three Musketeers	1, 605	0. 1%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Butterfinger	1,549	0.1%
Anheuser Busch	1,541	0.1%
Smirnoff	1,526	0.1%
Skoal	1,481	0.1%
Copenhagen	1,479	0.1%
Tootsie Roll	1,425	0.1%
Pure Ice	1,424	0.1%
Ruffles	1,407	0.1%
Old Milwaukee	1,404	0.1%
Pringles	1,402	0.1%
Wonkas	1,399	0.1%
Mr. Pibb	1,399	0.1%
Circle K	1,359	0.1%
Toms	1,356	0.1%
Hill Country Fair	1,352	0.1%
Jolly Rancher	1,326	0.1%
Power Bar	1,290	0.1%
Mars	1,286	0.1%
Kit Kat	1,275	0.1%
Dansani	1,266	0.1%
Lipton	1,264	0.1%
Rocky Top Root Bee	1,234	0.1%
Albertsons	1,228	0.1%
Red Bull	1,162	0.1%
Capri Sun	1,161	0.1%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Loves	1,140	0.0%
Seagrams	1,136	0.0%
Fruit & Grain	1,069	0.0%
Car Fresh	1,058	0.0%
Quaker State	1,054	0.0%
Michelob	1,042	0.0%
Kelloggs	1,039	0.0%
Kentucky Fried Chi	1,039	0.0%
Magnum	1,035	0.0%
Slim Fast	1,022	0.0%
V-8	993	0.0%
Starburst	992	0.0%
Main Street	976	0.0%
Tylenol	974	0.0%
Swisher Sweet	950	0.0%
Pall Mall	936	0.0%
Banner Press	915	0.0%
3M	911	0.0%
Milky Way	903	0.0%
Kraft	889	0.0%
Sylvania	879	0.0%
Igloo	879	0.0%
Aquafina	871	0.0%
Black & Mild	869	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Lays	863	0.0%
Almond Joy	835	0.0%
Pizza Hut	808	0.0%
Hunts	807	0.0%
Arbys	796	0.0%
Keebler	788	0.0%
Twix	777	0.0%
Long John Silvers	768	0.0%
Quaker	757	0.0%
Sweetheart	748	0.0%
Dubble Bubble	717	0.0%
Zima	717	0.0%
Brachs	710	0.0%
Bon Appetite	707	0.0%
Carls Jr	705	0.0%
Corona	704	0.0%
Parrot Ice	696	0.0%
Lucky Strike	686	0.0%
Heineken	685	0.0%
Dunkin Donuts	677	0.0%
Walgreens	671	0.0%
Cherokee Ice	665	0.0%
Airhead	656	0.0%
Dolly Madison	650	0.0%
Country Time	649	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Rold Gold	646	0.0%
Ocean Spray	642	0.0%
Lunchables	627	0.0%
Tecate	623	0.0%
Randalls	622	0.0%
Pearl	615	0.0%
Corn Nuts	614	0.0%
Sunny Delight	606	0.0%
Everyday	600	0.0%
Chesterfield	600	0.0%
Cleveland Ford	591	0.0%
Dalwa	591	0.0%
Okay Brand	591	0.0%
DK	591	0.0%
USA Gold 100s	588	0.0%
Virginia Slims	585	0.0%
Grandys	573	0.0%
Sesame St	570	0.0%
Chick Fil-A	568	0.0%
Schlitz	566	0.0%
Fruitytopia	565	0.0%
Yoo Hoo	564	0.0%
Dallas Morning News	562	0.0%
Ford	560	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Tri dent	556	0.0%
Dole	549	0.0%
Liggett Select	542	0.0%
Brookshire	541	0.0%
RC Cola	539	0.0%
Kool Aid	538	0.0%
Kodak	529	0.0%
Power Aid	520	0.0%
Six Flags	517	0.0%
Mounds	516	0.0%
Deli Express	504	0.0%
Advil	498	0.0%
Crown Royal	492	0.0%
General Mills	486	0.0%
Fibatape	482	0.0%
Parade	480	0.0%
Mug Root Beer	473	0.0%
Dollar General	471	0.0%
Sysco	469	0.0%
Everest	466	0.0%
Epic	464	0.0%
Smoke 1	462	0.0%
Green Sheet	461	0.0%
Hy-Top	460	0.0%
Red Dog	458	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Alamo	457	0.0%
Trails Best	442	0.0%
K-Mart	442	0.0%
Stars	439	0.0%
Funyuns	436	0.0%
HI-C	436	0.0%
Shepps	434	0.0%
Regal	426	0.0%
Fruit Rollup	425	0.0%
Icee	425	0.0%
Nehi	422	0.0%
Easy Mart	422	0.0%
Visine	420	0.0%
Sears	413	0.0%
Hawaiian Punch	413	0.0%
Sierra Mist	411	0.0%
Fanta	410	0.0%
Dos Equis	407	0.0%
Blow Pop	405	0.0%
Tropicana	400	0.0%
Whoppers	395	0.0%
Citra	388	0.0%
CarQuest	388	0.0%
El Chico	388	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Lab Safety	382	0.0%
Chex Mix	377	0.0%
More	377	0.0%
Freestyle	376	0.0%
Fruitworks	376	0.0%
Houston Chronicle	372	0.0%
Coastal Transporta	371	0.0%
Block Buster	370	0.0%
Zig Zag	370	0.0%
Bengal	369	0.0%
Eckerd Drugs	366	0.0%
Polar Ice	364	0.0%
AT&T	363	0.0%
Le High	363	0.0%
Lowe's	363	0.0%
Parliament	363	0.0%
Red Flash	363	0.0%
Libbys	360	0.0%
Chilly Dilly	360	0.0%
Blue Bunny	358	0.0%
Eclipse	358	0.0%
Hefty	356	0.0%
All Sport	354	0.0%
Shipley Donuts	352	0.0%
Now & Later	352	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Allstate Insurance	351	0.0%
Bravo Beef	351	0.0%
Buddin	351	0.0%
Cooper	351	0.0%
Do It Best	351	0.0%
Gold Leaf	351	0.0%
Good Humor	351	0.0%
King B	351	0.0%
Landmark	351	0.0%
Nicklos	351	0.0%
Norinco	351	0.0%
Quickrete	351	0.0%
Time Wise	351	0.0%
US Brick	351	0.0%
Old New England	346	0.0%
Bueno	345	0.0%
Kent	344	0.0%
Camel Lights	344	0.0%
Bill Miller	339	0.0%
Chevrolet	339	0.0%
Moon Pie	337	0.0%
Penzoil	337	0.0%
Viceroy	334	0.0%
Combos	334	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
<b>Bimbo</b>	<b>331</b>	<b>0.0%</b>
<b>Hanes</b>	<b>325</b>	<b>0.0%</b>
<b>Allsup s</b>	<b>321</b>	<b>0.0%</b>
<b>Cows</b>	<b>321</b>	<b>0.0%</b>
<b>Ice Breakers</b>	<b>321</b>	<b>0.0%</b>
<b>Mike &amp; Ikes</b>	<b>321</b>	<b>0.0%</b>
<b>Texas Life</b>	<b>321</b>	<b>0.0%</b>
<b>Kroger</b>	<b>320</b>	<b>0.0%</b>
<b>Halls</b>	<b>308</b>	<b>0.0%</b>
<b>Meister Brau</b>	<b>308</b>	<b>0.0%</b>
<b>Leaf</b>	<b>306</b>	<b>0.0%</b>
<b>Ross</b>	<b>306</b>	<b>0.0%</b>
<b>FILA</b>	<b>301</b>	<b>0.0%</b>
<b>Sara Lee</b>	<b>297</b>	<b>0.0%</b>
<b>San Antonio Expres</b>	<b>296</b>	<b>0.0%</b>
<b>Action Popcorn</b>	<b>296</b>	<b>0.0%</b>
<b>Bass Pro Shop</b>	<b>296</b>	<b>0.0%</b>
<b>Dannon</b>	<b>296</b>	<b>0.0%</b>
<b>Extreme</b>	<b>296</b>	<b>0.0%</b>
<b>Folgers</b>	<b>296</b>	<b>0.0%</b>
<b>Red Head</b>	<b>296</b>	<b>0.0%</b>
<b>Zappi t</b>	<b>296</b>	<b>0.0%</b>
<b>Barqs</b>	<b>295</b>	<b>0.0%</b>
<b>Scott</b>	<b>293</b>	<b>0.0%</b>
<b>Dot Feed</b>	<b>292</b>	<b>0.0%</b>

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
<b>John Deere</b>	<b>292</b>	<b>0.0%</b>
<b>Hill Country</b>	<b>292</b>	<b>0.0%</b>
<b>K00L 100s</b>	<b>292</b>	<b>0.0%</b>
<b>Golden Royal</b>	<b>292</b>	<b>0.0%</b>
<b>A-1 Limo</b>	<b>285</b>	<b>0.0%</b>
<b>American Fare</b>	<b>285</b>	<b>0.0%</b>
<b>Carlton</b>	<b>285</b>	<b>0.0%</b>
<b>Clearly American</b>	<b>285</b>	<b>0.0%</b>
<b>Direct TV</b>	<b>285</b>	<b>0.0%</b>
<b>Disney</b>	<b>285</b>	<b>0.0%</b>
<b>Fleetrite</b>	<b>285</b>	<b>0.0%</b>
<b>Nature Valley</b>	<b>285</b>	<b>0.0%</b>
<b>Ramada</b>	<b>285</b>	<b>0.0%</b>
<b>Sathers</b>	<b>285</b>	<b>0.0%</b>
<b>Sparkler</b>	<b>285</b>	<b>0.0%</b>
<b>Tic Tacs</b>	<b>285</b>	<b>0.0%</b>
<b>Tylers</b>	<b>285</b>	<b>0.0%</b>
<b>Van Holtons</b>	<b>285</b>	<b>0.0%</b>
<b>Crystal Clear</b>	<b>285</b>	<b>0.0%</b>
<b>Pinata</b>	<b>283</b>	<b>0.0%</b>
<b>Yoplait</b>	<b>283</b>	<b>0.0%</b>
<b>Boones Farm</b>	<b>456</b>	<b>0.0%</b>
<b>Welches</b>	<b>279</b>	<b>0.0%</b>
<b>Super Bubble</b>	<b>278</b>	<b>0.0%</b>

Brand Code	Tally Count	%
Cambri dge	277	0. 0%
Castrol Oil	277	0. 0%
Tri don	277	0. 0%
Charmi n	275	0. 0%
Di amond	275	0. 0%
Electri cord	275	0. 0%
Envelope-Grand Cas	275	0. 0%
Farmers Bros.	275	0. 0%
Leesville Bumper	275	0. 0%
Ni ce	275	0. 0%
Oral - B	275	0. 0%
Penske	275	0. 0%
Red Barn	275	0. 0%
Specks	275	0. 0%
Juni or Mi nts	271	0. 0%
El khart	266	0. 0%
Sun Mart	266	0. 0%
Warheads	261	0. 0%
Ameri can Ice	259	0. 0%
Clear And Pure	259	0. 0%
Patriot	255	0. 0%
Old Navy	255	0. 0%
Sierra	254	0. 0%
Austin Quality	251	0. 0%
Aberfoyle	251	0. 0%

Brand Code	Tally Count	%
Cougar	249	0. 0%
Shiner Bock	246	0. 0%
On The Border	245	0. 0%
Rustlers	244	0. 0%
Frosty Acres	244	0. 0%
Durango	243	0. 0%
Dr. B	241	0. 0%
US Postal Service	241	0. 0%
General Electric	241	0. 0%
Panasoni c	241	0. 0%
Instapack	241	0. 0%
Sparkling Ice	237	0. 0%
Austin American St	234	0. 0%
Dodge	234	0. 0%
Gourmet	234	0. 0%
Kmi x	234	0. 0%
Totito	234	0. 0%
Shell	234	0. 0%
Lowreys	233	0. 0%
Wendl ands	229	0. 0%
Federal	229	0. 0%
Mopar	229	0. 0%
22z	229	0. 0%
Canada Dry	229	0. 0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Roegel ein	229	0.0%
White Lightning	229	0.0%
Hornsby s	224	0.0%
Golden Chick	224	0.0%
Jack Links	222	0.0%
Advanced Cons	220	0.0%
City Of Mcallen	220	0.0%
Sprint	220	0.0%
Stars & Stripes	220	0.0%
Wej -It	220	0.0%
Chick-0-Stick	219	0.0%
Jumex	213	0.0%
Capitol	205	0.0%
USA Gold	205	0.0%
Wilsons	203	0.0%
Fosters	203	0.0%
Total	203	0.0%
Foleys	203	0.0%
Frontline	203	0.0%
Jeffs Auto	203	0.0%
Lubys	203	0.0%
Project Pro.	203	0.0%
Sparkle	203	0.0%
Sparkl tts	203	0.0%
Spawl di ng	203	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Sun- Mai d	201	0.0%
Bubbl i cious	198	0.0%
Anchor	198	0.0%
Siscos	197	0.0%
Arctic Ice	196	0.0%
Blue Bird	194	0.0%
Metabolife	193	0.0%
RAIN- X	191	0.0%
Crossroads Deli	191	0.0%
Auto Zone	190	0.0%
Clorox	188	0.0%
Golden State	188	0.0%
BC Powder	188	0.0%
Becton	188	0.0%
Best Yet	188	0.0%
Black Burn	188	0.0%
Color Caulk	188	0.0%
Custom Eyes	188	0.0%
Don Dan Auto	188	0.0%
Dum Dum	188	0.0%
Duraline	188	0.0%
G Smokes	188	0.0%
Gaf	188	0.0%
Garden Ri dge	188	0.0%



Brand Code	Tally Count	%
Gartex	188	0.0%
Golden Elk	188	0.0%
Gulf Lite	188	0.0%
Guzzler	188	0.0%
Hb	188	0.0%
Home Essentials	188	0.0%
King Edward	188	0.0%
Marlin 100S	188	0.0%
Masterlock	188	0.0%
Munrol	188	0.0%
Pro	188	0.0%
Queen Helene	188	0.0%
Squeeze It	188	0.0%
Tasters Choice	188	0.0%
Totinos	188	0.0%
Via	188	0.0%
Water Works	188	0.0%
Mountain Valley	187	0.0%
Mikes	184	0.0%
Phillips 66	184	0.0%
Clear & Pure	183	0.0%
Typhoon	183	0.0%
Jasons Deli	183	0.0%
Mrs. Freshleys	183	0.0%
Napa Auto Parts	180	0.0%

Brand Code	Tally Count	%
IGA	180	0.0%
A. T. Woods	180	0.0%
Birmingham	180	0.0%
Bowie	180	0.0%
Conoco	180	0.0%
First State Bank	180	0.0%
Fresh	180	0.0%
General Foam/Plast	180	0.0%
International	180	0.0%
J. C. Cole & Son In	180	0.0%
Larrys Marine Ct	180	0.0%
Levis	180	0.0%
Mannington	180	0.0%
Mid Western	180	0.0%
Napco	180	0.0%
One Stop	180	0.0%
Pic A Dilly	180	0.0%
Purina	180	0.0%
Qui cki ck	180	0.0%
Quorum	180	0.0%
Red Di amond	180	0.0%
Sav- A- Lot	180	0.0%
Scrap Metal	180	0.0%
Tang	180	0.0%

Brand Code	Tally Count	%
Ultra Buy	180	0.0%
Upco	180	0.0%
Walker	180	0.0%
Worlds Oven	180	0.0%
Lifestyles	178	0.0%
Teddi co	177	0.0%
Dillards	175	0.0%
B. C. Powder	175	0.0%
Charmex	175	0.0%
Dealt Steele	175	0.0%
Hamilton Beach	175	0.0%
Kelly Moore	175	0.0%
Mc Frugals	175	0.0%
Monarch	175	0.0%
Petro	175	0.0%
Pillsbury	175	0.0%
Smoothie King	175	0.0%
Sport	175	0.0%
Tyler Ice	175	0.0%
Van Camps	175	0.0%
Vent. Visor	175	0.0%
Trojan	174	0.0%
ACE	174	0.0%
Suava Java	174	0.0%
Milk Duds	174	0.0%

Brand Code	Tally Count	%
Twizzlers	172	0.0%
Texas Burger	172	0.0%
Sour Punch	172	0.0%
Nuway	172	0.0%
No Doze	170	0.0%
Klondike	168	0.0%
Columbia House	167	0.0%
Chicken Express	165	0.0%
GAP	165	0.0%
Tiger Mart	163	0.0%
Motel 6	163	0.0%
Crystal Ice	163	0.0%
Dennys	163	0.0%
Hot Tamales	163	0.0%
Thrifty Nickel	163	0.0%
Winston Lights	155	0.0%
Koi to	155	0.0%
Fargo	155	0.0%
Thompson Constructi	155	0.0%
Dixie	155	0.0%
Fresh Popcorn	154	0.0%
Olfa	151	0.0%
Road Tech	151	0.0%
Farleys	150	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Select	149	0.0%
Campbells	148	0.0%
Gates	147	0.0%
Grande Butane	146	0.0%
Little Ceasars	145	0.0%
Lifesavers	144	0.0%
Pal	144	0.0%
Cartwright	143	0.0%
Corn Cob	143	0.0%
Levi ton	236	0.0%
Moffat Intl.	142	0.0%
Arizona	139	0.0%
Lincoln	139	0.0%
Di amond Shamrock	138	0.0%
Exxon	136	0.0%
Clear Cube Ice	134	0.0%
Sparkletts	134	0.0%
City of Austin	133	0.0%
Ebony	132	0.0%
Bank Of America	132	0.0%
Home Depot	132	0.0%
TRUE	129	0.0%
Boomer	125	0.0%
Kaul ua	125	0.0%
Sobe	125	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Salem Ultra Light	122	0.0%
Hi - Lo	120	0.0%
Marvel	120	0.0%
Owens	120	0.0%
Peter Piper	120	0.0%
Chucky Cheese	120	0.0%
York	120	0.0%
Bi t - 0 - Honey	120	0.0%
Sure	120	0.0%
Compact	120	0.0%
Hoover	120	0.0%
Britney Spears	120	0.0%
Zep	120	0.0%
Netelix	120	0.0%
Value Pride	120	0.0%
Poly - Ameri ca	120	0.0%
Cream of Wheat	120	0.0%
Alamo Street	120	0.0%
Vaseline Intensive	120	0.0%
Central Texas Iron	120	0.0%
Time Warner Cable	120	0.0%
Prime Protection	120	0.0%
Lowenbrau	113	0.0%
Spectrum	100	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Crown	100	0.0%
Snyders	100	0.0%
Benadryl	100	0.0%
Blistex	100	0.0%
TreeTop	100	0.0%
EvenFlo	100	0.0%
Toms Ribs	100	0.0%
Pyramid	100	0.0%
B-4 Auto Parts	99	0.0%
Briggs Station	99	0.0%
Amrep	99	0.0%
Enjoyn	99	0.0%
Fri go	99	0.0%
Ring Pop	99	0.0%
Fernandos	99	0.0%
Compass Bank	99	0.0%
Jazzercise	99	0.0%
Apex	99	0.0%
Big Peach	99	0.0%
Blessed Ac	99	0.0%
Brentwood	99	0.0%
Haliburton	99	0.0%
Harlans	99	0.0%
Jegs	99	0.0%
Nicole Collection	99	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Rudol fs	99	0.0%
Schl otzskys	99	0.0%
Tampax	99	0.0%
Thrifty Call	99	0.0%
Slice	95	0.0%
Chek	95	0.0%
Grenadi ers	95	0.0%
Gunk	95	0.0%
Kentucky Deluxe	95	0.0%
Li fe	95	0.0%
Longvi ew Temple	95	0.0%
Pizza Inn	95	0.0%
Prestone	95	0.0%
Radi o Shack	95	0.0%
Roberts	95	0.0%
Sidral Mundet	95	0.0%
Skittles	95	0.0%
Tums	95	0.0%
Txi	95	0.0%
Young And Young	95	0.0%
NDS	94	0.0%
Husky	94	0.0%
Prevos	94	0.0%
XHILERATION	94	0.0%

Brand Code	Tally Count	%
Etienne	94	0.0%
FanFair	94	0.0%
Bugles	93	0.0%
Motor Craft	92	0.0%
John Boos	92	0.0%
Oak Hill Gazette	92	0.0%
Checkers	92	0.0%
Nutrena	92	0.0%
Jhirmack	92	0.0%
Squirt	92	0.0%
Universal Products	92	0.0%
Aearo	92	0.0%
Bills	92	0.0%
Brawny	92	0.0%
Brothers Food	92	0.0%
Carnival	92	0.0%
Clouds	92	0.0%
Cosmopolitan	92	0.0%
Crosslands Auto	92	0.0%
Dads Root Beer	92	0.0%
Debes Ice	92	0.0%
Diamond Sparkler	92	0.0%
Dreyers	92	0.0%
First Class	92	0.0%
Harbor	92	0.0%

Brand Code	Tally Count	%
Hometown Press	92	0.0%
Lil Gator	92	0.0%
Lou. Pac.	92	0.0%
M&G Auto	92	0.0%
Mazzios	92	0.0%
Meridian	92	0.0%
Mini Thin	92	0.0%
Mr Speedy Auto	92	0.0%
Progressive	92	0.0%
Shurtape	92	0.0%
Silver Creek	92	0.0%
Sour Pops	92	0.0%
Speedy Ice	92	0.0%
Taco Delite	92	0.0%
Texarkansas Gaz	92	0.0%
Top Choice	92	0.0%
Turtles	92	0.0%
Tx Liability Auto	92	0.0%
Wiener Snitzel	92	0.0%
Www. Gamestop. Com	92	0.0%
Fischer Price	90	0.0%
Eagle Electric	89	0.0%
Weathermatic	89	0.0%
Power Block	89	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
PumpCo	89	0.0%
Rain Bird	89	0.0%
Comet Cleaners	89	0.0%
Blue Ox	89	0.0%
Palmetco	89	0.0%
Dominos	89	0.0%
United Rental	89	0.0%
Pizza Roma	89	0.0%
Clearly Canadian	86	0.0%
Fresca	86	0.0%
Snapple	86	0.0%
Good Day	86	0.0%
Act II	86	0.0%
Nesquik	86	0.0%
Tonka	86	0.0%
Breezer	85	0.0%
Dollar Tree	85	0.0%
El dorado	85	0.0%
Goodies	85	0.0%
Ice Mountains	85	0.0%
Miricle Soap	85	0.0%
Mr Lincoln	85	0.0%
Bayer	78	0.0%
Clicks	78	0.0%
Coastal	78	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Durant	78	0.0%
Hydri on	78	0.0%
Hygei a	78	0.0%
Irs	78	0.0%
Mari di on	78	0.0%
Oatey	78	0.0%
Pl ayskool	78	0.0%
Praseks	78	0.0%
Ryobi	78	0.0%
Slusher Grusher	78	0.0%
Speedy Stop	78	0.0%
Squi ncher	78	0.0%
Wei nersni tzel	78	0.0%
Wi x	78	0.0%
Havoline	77	0.0%
Power Service	77	0.0%
American Dream	77	0.0%
Tex-Best	77	0.0%
Famous Star	77	0.0%
ADSMART	77	0.0%
Home Interiors	75	0.0%
Jack Daniels	75	0.0%
Avent	75	0.0%
Ev Salinas	75	0.0%

Brand Code	Tally Count	%
Frio Ice	75	0.0%
Ice Maid	75	0.0%
Little Joe	75	0.0%
Partner Cafe	75	0.0%
S. A. Express	75	0.0%
Salsa Del Sol	75	0.0%
Tx Sweet	75	0.0%
Viking	75	0.0%
Yellow Jacket	75	0.0%
Zua Gua	75	0.0%
Kudos	74	0.0%
Stanley	74	0.0%
Auto Trader	74	0.0%
Hardiplank	74	0.0%
Tostitos	73	0.0%
Auto Vantage Gold	73	0.0%
Clover	73	0.0%
Good Eats	73	0.0%
Marks Man	73	0.0%
Mc Coys	73	0.0%
Rio Grande Mill	73	0.0%
Rivortril	73	0.0%
Space Rescuer	73	0.0%
Woods	73	0.0%
Tom Thumb	71	0.0%

Brand Code	Tally Count	%
Country Blend	71	0.0%
Rubber Maid	71	0.0%
Remington	71	0.0%
PetsMart	71	0.0%
Ademco	71	0.0%
Altus	71	0.0%
Amco	71	0.0%
Ampact	71	0.0%
Avery	71	0.0%
B & C Parts	71	0.0%
Beech-Nut	71	0.0%
Blue Oyster	71	0.0%
Bosch	71	0.0%
Cable Matic	71	0.0%
Carmex	71	0.0%
Casa Solana	71	0.0%
Cosolidated	71	0.0%
Enfamil	71	0.0%
Evergrip	71	0.0%
Golds Gym	71	0.0%
Jam	71	0.0%
Mistic	71	0.0%
Modelo	71	0.0%
Nike	71	0.0%

Brand Code	Tally Count	%
Oreily Auto	71	0.0%
Ohio Blue Tip	71	0.0%
Olive Garden	71	0.0%
Panera	71	0.0%
Patriarch	71	0.0%
Polaris	71	0.0%
Post Properties	71	0.0%
Sac & Save	71	0.0%
Shamrock	71	0.0%
Sika	71	0.0%
Simpson	71	0.0%
Soft Sheen	71	0.0%
Spirits	71	0.0%
The Trolly	71	0.0%
Toro	71	0.0%
Town Square	71	0.0%
Toyo Tire	71	0.0%
Trans Star Met.	71	0.0%
Tri Gas	71	0.0%
Valvoline	71	0.0%
Vernors	71	0.0%
Whoop	71	0.0%
Witch Equit.	71	0.0%
York Ice Mac.	71	0.0%
Mellow Yellow	68	0.0%

Brand Code	Tally Count	%
Icehouse	66	0.0%
Goldschlagger	66	0.0%
Colt 45	65	0.0%
Grande	65	0.0%
Sentinal	65	0.0%
Crest	64	0.0%
180 Energy	64	0.0%
Banana Boat	64	0.0%
Best Western	64	0.0%
Capri	64	0.0%
Carrier A. C.	64	0.0%
Cisco	64	0.0%
Clover Valley	64	0.0%
Container Store	64	0.0%
Dallas Mattress	64	0.0%
English Color	64	0.0%
Floral Lite	64	0.0%
Grolier	64	0.0%
Jay Rocks Gym	64	0.0%
La Princesa	64	0.0%
Lubramatic	64	0.0%
Mini Brands	64	0.0%
Mrs Sullivan	64	0.0%
Quality Air Care	64	0.0%



<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Quality Cut	64	0.0%
Royal Botanica	64	0.0%
Schepps	64	0.0%
Spiral Lite	64	0.0%
Sunbelt	64	0.0%
Www. Dal. Chinese	64	0.0%
Armor-All	63	0.0%
Kleenex	63	0.0%
Hersules Hands	63	0.0%
SOCO	63	0.0%
Miracle Whip	63	0.0%
Janes Gravel	63	0.0%
Auto Glass Ctr	63	0.0%
Big Shot	63	0.0%
Bondo	63	0.0%
Bunker	63	0.0%
Clorets	63	0.0%
Concentra	63	0.0%
Cracker Jacks	63	0.0%
Curb	63	0.0%
Dream Works	63	0.0%
Fisher	63	0.0%
Glad	63	0.0%
Mary Kay	63	0.0%
Max Brand	63	0.0%

<b>Brand Code</b>	<b>Tally Count</b>	<b>%</b>
Methadone	63	0.0%
Odulls	63	0.0%
Oberts	63	0.0%
Pepridge Farm	63	0.0%
Red Man	63	0.0%
Red Seal	63	0.0%
Shield	63	0.0%
Starbucks	63	0.0%
Texas Bank	63	0.0%
Tropical Breeze	63	0.0%
Ultra	63	0.0%
Wells Fargo	63	0.0%
Wissoll	63	0.0%
Jui cy Fruit	61	0.0%
Able Auto	61	0.0%
Ara Insurance	61	0.0%
Baskin Robbins	61	0.0%
Best Buy	61	0.0%
Dave & Busters	61	0.0%
Decor	61	0.0%
Discovery	61	0.0%
Eli Banks Farms	61	0.0%
Eye Masters	61	0.0%
Harris Co	61	0.0%

Brand Code	Tally Count	%
Hobby Lobby	61	0.0%
Idc	61	0.0%
Joes Trans.	61	0.0%
Manco	61	0.0%
Marlin	61	0.0%
Mentos	61	0.0%
Merchandise Center	61	0.0%
Magic	61	0.0%
Min Yard	61	0.0%
Petco	61	0.0%
Pledge	61	0.0%
Powell Farms	61	0.0%
Sven Hards	61	0.0%
Tillamook	61	0.0%
Tombstone	61	0.0%
Tx4	61	0.0%
Ub Rich	61	0.0%
Union Fidelity	61	0.0%
Frenches	60	0.0%
Sony	60	0.0%
Top Of The Rockies	60	0.0%
Doc Otis Lemonade	58	0.0%
Cheese Nips	58	0.0%
Dr Hytop	58	0.0%
#40	56	0.0%

Brand Code	Tally Count	%
Anco	56	0.0%
Ben & Jerrys	56	0.0%
Fiesta	56	0.0%
Fort Worth	56	0.0%
Race Trac	56	0.0%
Red Label	56	0.0%
Sparkling	56	0.0%
Special Brew	56	0.0%
Pemmi can	51	0.0%
Ruters	51	0.0%
Bake- Ens	51	0.0%
Bacardi	40	0.0%
Mi sty	40	0.0%
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	2301781	100%