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RESPONSE #9

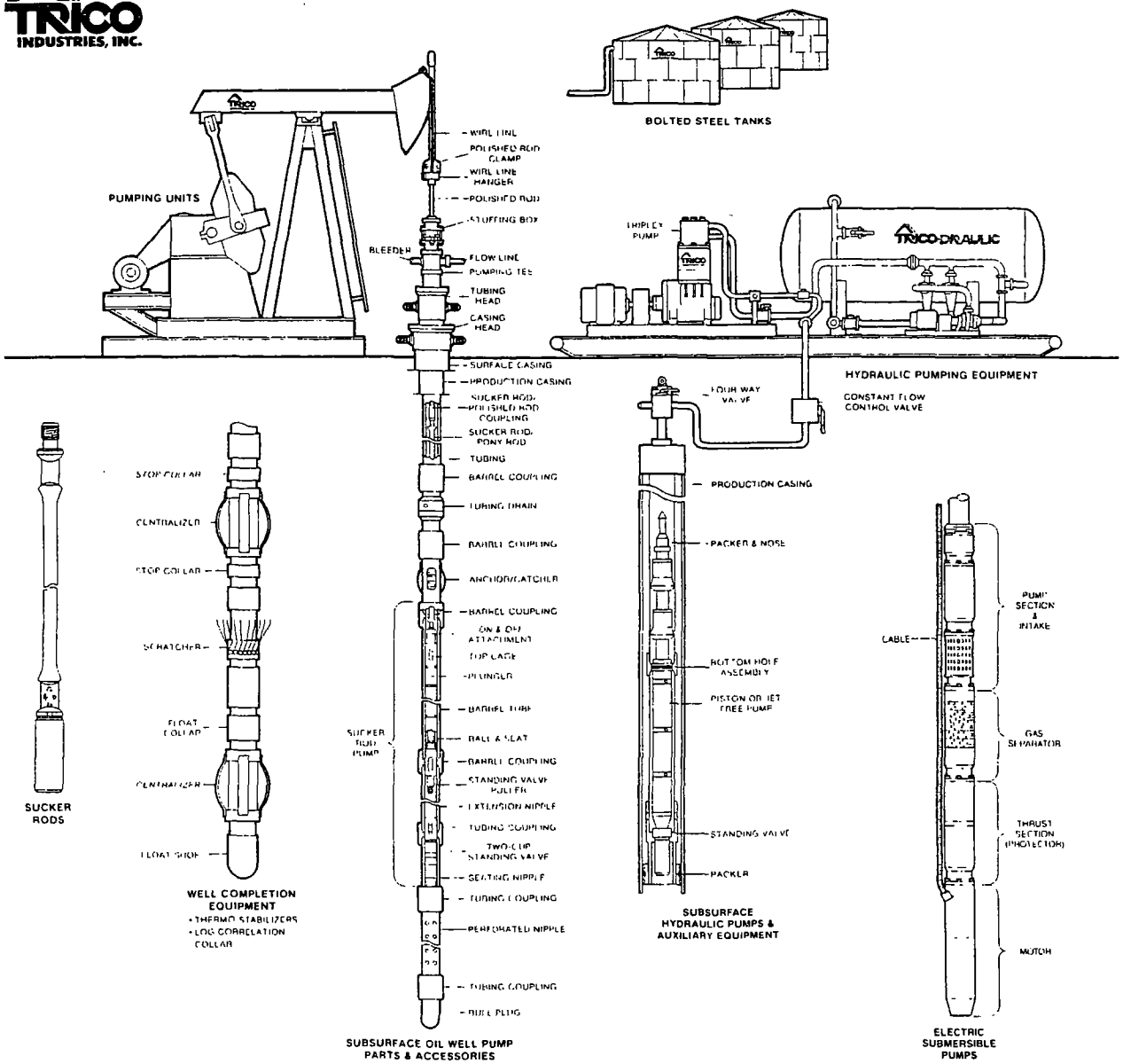
NOTE: Potentially privileged documents included

TRICO INDUSTRIES, INC.

1988•1989 CATALOG

PACCAR 00445

TRICO INDUSTRIES, INC.



OTHER TRICO PRODUCTS:

PRODUCTION TOOLS
- HYDRAULIC TUBING ANCHORS
- CROSSOVER ASSEMBLY
- PUMP TOP SEALS

PUMP SHOP EQUIPMENT
- FRICTIONGRIP WRENCHES
- FRICTIONGRIP VISES
- REPAIR BENCHES
- STORAGE RACKS
- TOOL CARTS
- PUMP SUPPORTS
- WASH TANKS

WELL SERVICING TOOLS
- POWER ROD TONGS
- ROD ELEVATORS
- ROD SOCKETS
- ROD WRENCHES
- ROD HOOKS

HYDRAULIC PUMPING EQUIPMENT
- PRESSURE CONTROL VALVES
- WATER FLOOD CONTROL VALVES
- POWER CONTROL VALVES
- HYDRAULIC PRESSURE INTENSIFIERS
- TUBING CLEANING TOOLS

All products described in this are manufactured by Trico Industries, Inc.

Trico Industries, Inc. is engaged primarily in the design, manufacture, marketing, and servicing of products for the petroleum industry. The products include oil well completion equipment, subsurface sucker rod pumps and accessories, production tools, oil well servicing tools, pump shop equipment, pumping units, hydraulic pumping equipment, subsurface hydraulic pumps and auxiliary equipment, bolted steel tanks, and electric submersible pumps.

Trico also has a force of qualified engineers and sales and service representatives based throughout its manufacturing and warehouse network to provide the proper products and the expert advice and service required to meet the ever changing needs and challenges of the industry.

Trico products are available through service centers located in U.S. oil producing areas and through independent representatives worldwide. After the sale of new equipment, a large staff of trained servicemen are available 24 hours a day, every day, to keep your Trico equipment operating properly and profitably.

Since its beginning over 30 years ago, Trico's philosphy of product excellence through engineering innovation, metallurgical advances, and new manufacturing techniques has benefited both Trico and the oilpatch. Today, the Company has a reputation for quality unexcelled in the industry.

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TRICO INDUSTRIES, INC. PRODUCTION EQUIPMENT

Sucker Rod Pumps and Parts

Subsurface Rod Pumps

Monarch subsurface rod pumps are available in every API size and type and in all materials and finishes, standard and special. As every experienced operator knows, each oil well has its own distinct personality and requires a particular type of pump assembly. Trico servicemen have the expertise—from years of experience—to know which configuration will do the best job. Their ability to match pump and well for peak production equals the enviable reputation of the rugged hardware they sell and service. So no matter what you're dealing with in the way of corrosion, abrasion, gas or whatever, your Trico man will not only tell you how to handle it, he'll deliver the goods to get the job done fast. Give him a call.

- 24-hour-a-day service, every day of the year.
- Large local inventories.
- Pumps for all standard tubing and casing sizes.
- Barrels and plungers for all types of well conditions.

Traveling Thin-Wall Barrel Pump (RWTC)

The RWTC pump is recommended for moderately deep wells because internal and external pressures on the barrel tube reduce the risk of bursting over top anchored pumps. The open-type cage design used on both the traveling and standing valves results in optimum flow rates.

Stationary Thin-Wall Barrel Pump (RWAM)

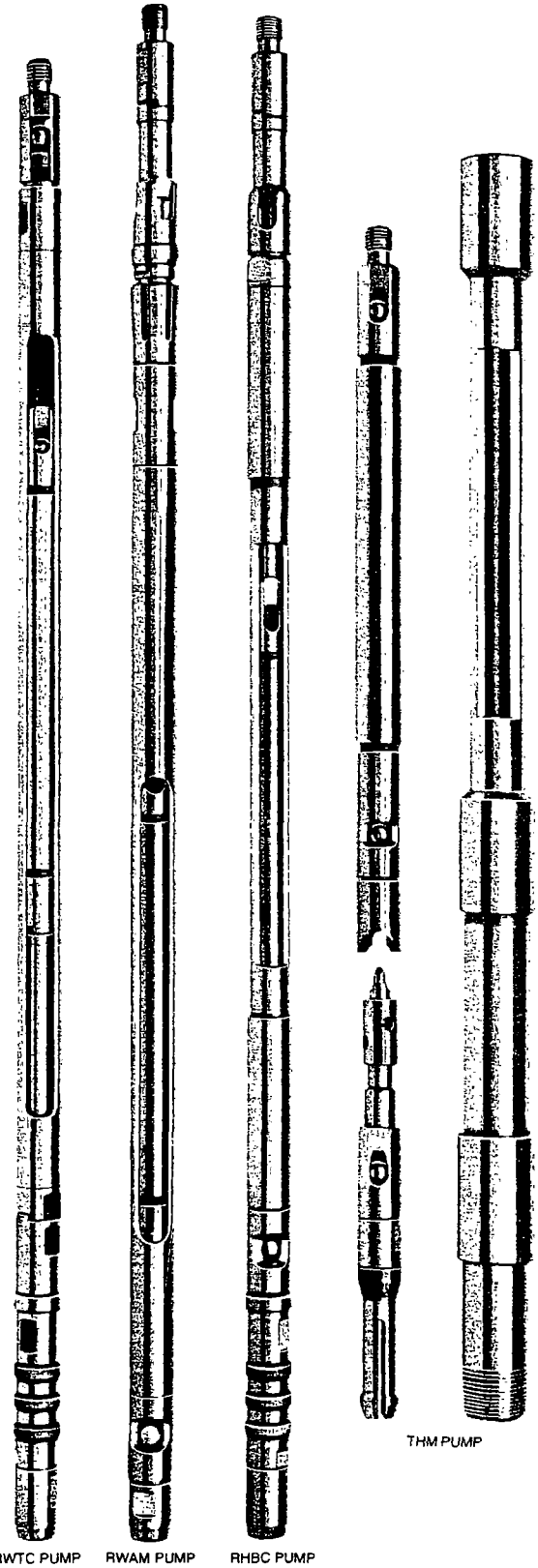
The RWAM pump is recommended for wells with a low fluid level at moderate depths. With the pump anchored and sealed at the top end, sand cannot settle between the pump barrel and tubing. Close internal spacing of the valves minimizes gas locking in gassy or foamy wells.

Stationary Heavy-Wall Barrel Pump (RHBC)

The RHBC pump is recommended for rugged service because of the heavy-wall stroke-through construction of the barrel tube. This feature allows even wear along the entire length of the tube. The size and location of the standing valve makes this pump ideal for low-fluid-level wells. Close internal valve spacing also minimizes gas locking problems.

Heavy-Wall Tubing Barrel Pump (THM)

The THM pump is recommended for hard-to-pump wells. The heavy-duty stroke-through construction, which allows the plunger to stroke out of each end of the barrel, results in even wear distribution and minimizes the entry of abrasive material between the plunger and barrel. Tubing type pumps offer the maximum bore-to-tubing ID ratio making them capable of handling more fluid than insert pumps that can be run in the same size tubing.



THM PUMP

RWTC PUMP RWAM PUMP RHBC PUMP

SUBSURFACE ROD PUMPS

Sucker Rod Pumps and Parts

Subsurface Pump Barrels

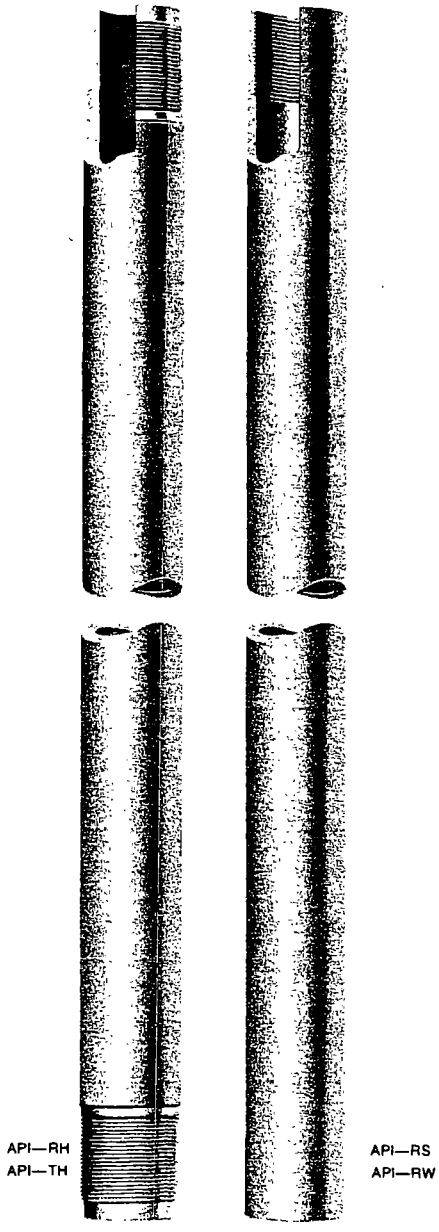
Advances in metallurgy and manufacturing give you...

Barrels with longer life in every well condition

Our subsurface pump barrels lead the field in the petroleum industry all over the world, for the best reason in the world—they do a better job. Superior control of material quality is half the story. The other half is superior control of straightness and finish. So whatever problems your well presents, you can be sure that a Monarch barrel will deliver the capabilities it promises—*giving longer service itself, and promoting durability of* other parts of the pump, too.

Full range of types available

Whether your production is corrosive, abrasive, or both, there's a Monarch barrel to handle it. We make them in five basic materials: regular steel, hardened steel, chrome ID steel, bronze, and chrome ID bronze—plus some specials. They're all precision-honed to a mirror finish, and our chrome plating technique has set the industry standard. And we make them in every standard API configuration.



SUBSURFACE PUMP BARRELS

APPLICATIONS

Material	Service					
	Abrasion				Corrosion	
	Low	Moderate	Severe	None	CO_2	H_2S
Regular Steel	X			X	X	
Hardened Steel	X	X		X	X	
Regular Steel (Chromed ID)			X	X	X	
Bronze	X			X		X
Bronze (Chromed ID)		X		X		X
Steel Tricarb			X	X	X	X
Brass Tricarb			X	X	X	X

TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Sucker Rod Pumps and Parts

Plungers

Monarch plungers are available in all standard API sizes and types—chrome, Mo-Hard and Mo-Hard with monel pins. The chrome units are the lowest cost plungers, with a hard and high quality surface finish. The Mo-Hard, a thermo sprayed unit, is Trico's premium plunger.

Series 389 Mo-Hard Plungers

Plungers last five times longer with unique Mo-Hard finish.

Monarch Mo-Hard plungers are made of heavy wall seamless alloy tubing, with a special high nickel hard-facing material sprayed on in a molten state. The result is a surface with a hardness of Rockwell Rc 58-60 which is up in the diamond neighborhood. That's why they stand up to abrasion and corrosion five times longer than ordinary plungers.

Lower lifting costs

Besides its extreme toughness, the Mo-Hard surface also has a very low coefficient of friction against any kind of barrel. There's no galling, barrels last longer, and the pump runs smoother, easier, more efficiently. Pins can be nickel-plated against corrosion.

Standard Sizes

Standard sizes are available in 1-1/4, 1-1/2, 1-3/4, 1-25/32, 2-1/4, 2-3/4, and 3-1/4 in., ground to many standard fits. Standard lengths are 2 through 6 ft.

Series 397 Mo-Hard Plungers with Monel Pins

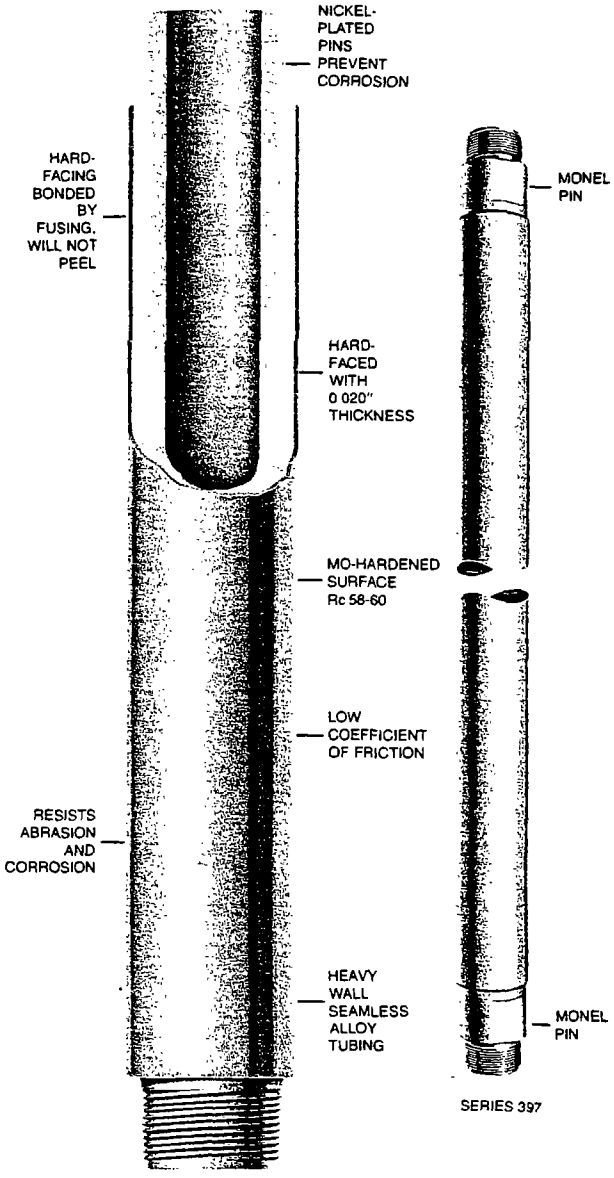
Monel pins and super-hard finish Mo-Hard plungers give extra long life in the most corrosive wells.

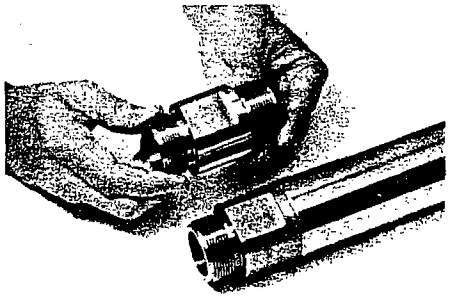
The plunger area most vulnerable to corrosion is the pin. Without protection, corrosive elements will quickly chew through the thin, threaded wall and destroy pump efficiency.

To help overcome this problem, Trico offers the Series 397 Plunger. Prior to final grind of the plunger, precision machined Monel pins, with their inherent corrosion-resistant properties are threaded into each end of the plunger and secured with a special hard seal epoxy. Box depth and pin length are kept to very close dimensional tolerances to eliminate turbulence-creating voids. This combination results in a super-hard plunger with superior abrasion and corrosion resistance *throughout its full length, including the pin.*

Standard Sizes

Standard sizes are available in 1-1/4, 1-1/2, 1-3/4, and 2 in. ground to any fit desired. Standard lengths are 2 through 6 ft.

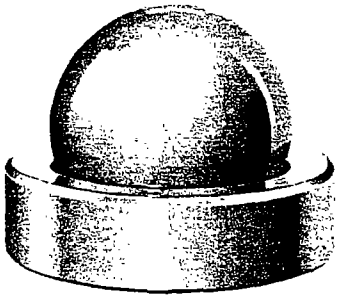




MO-HARD PLUNGERS

PRODUCTION EQUIPMENT

TRICO INDUSTRIES, INC.



FLAT TYPE

Sucker Rod Pumps and Parts

Balls and Seats

More efficiency, longer service.

Trico balls and seats are machined to the highest standards in the industry, so you get top performance out of your pump. And our materials and finishes meet or exceed all API requirements, so you get extra long service without problems.

Types for all conditions.

Trico makes balls and seats in six different materials, to handle every degree of abrasion and corrosion. And we make them in a full range of standard sizes

Materials

Chromard—A relatively low priced, general purposed, ball and seat made of special 440 stainless steel; for wells with moderate abrasion and of moderate depth.

Super Alloy—Superior grade stainless steel, heat treated; for deep wells.

Hi-Krome—High grade chromium stainless steel, hardened; non-magnetic, excellent corrosion resistance, adequate hardness. Recommended for corrosive conditions where Monel is too soft.

Rex-Alloy—Alloy tungsten, chromium and cobalt for severe corrosive and abrasive conditions. Non-magnetic; hardness of Rc 56-58.

Carbide-Tungsten — Carbide, sintered with cobalt binder. Material for extremely severe corrosion and abrasion.

Ceramic — (Transformation toughened zirconia) material for extremely severe corrosion and abrasion.

BALL AND SEAT SPECIFICATIONS
FLAT TYPE

Seat (in.)		Super Alloy	Chromard	Rex-Alloy	Hi-Krome	Carbide	Carbide
	Ball (in.)	Stainless	Chromard	Rex-Alloy	Hi-Krome	Carbide	Stainless
1-1/4	11/16		104-D29-111				104-D26-111
1-1/4	3/4		104-D29-112	104-D28-312		104-D26-212	104-D26-112
1-1/2	7/8	104-F15-114	104-F29-114	104-F28-314			
1-1/2	15/16	104-F15-115	104-F29-115	104-F28-315		104-D26-215	104-F26-115
1-3/4	1	104-H15-116	104-H29-116	104-H28-316	104-H31 516		104-H26-116
1-3/4	1-1/8	104-H15-118	104-H29-118	104-H28-318		104-H26-218	104-H26-118
2	1-1/8	104-K15-118	104-K29-118				104-K26-118
2	1-1/4	104-K15-120	104-K29-120	104-K28-320			104-K26-120
2-1/4	1-1/4	104-M15-120	104-M29-120	104-M28-320			104-M26-120
2-1/4	1-3/8	104-M15-122	104-M29-122	104-M28-322	104-M31-522	104-M26-222	104-M26-122
2-3/4	1-1/2	104-P15-124	104-P29-124	104-P28-324			104-P26-124
2-3/4	1-11/16	104-P15-127	104-P29-127	104-P28-327			104-P26-127
3-3/4	2	104-T15-132		104-T28-332			

TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Sucker Rod Pumps and Parts

Valve Cages

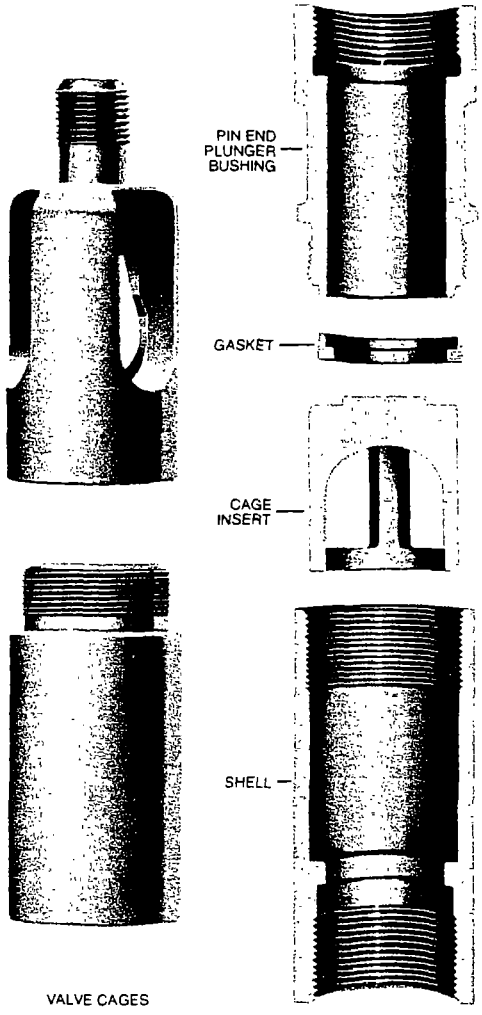
Tough basic materials, together with superior design, ensures long service with Monarch valve cages. Steel, brass and stainless cages, both open and closed, are available.

Pump Insert Guided Cages

The most effective answer to minimize wear of critical pump cage, ball and seat

The Monarch Pump Insert Guided Cage is designed to provide longer life for pump cages and ball and seats than any conventional cage combination. Its self-centering cage insert assures a straight drop for the ball. This reduces "float-flutter" ball action and minimizes friction wear on the ball, seat and cage. Fluid passage has minimum restrictions. A special high-temperature-resistant rubber gasket cushions the insert to soften impact.

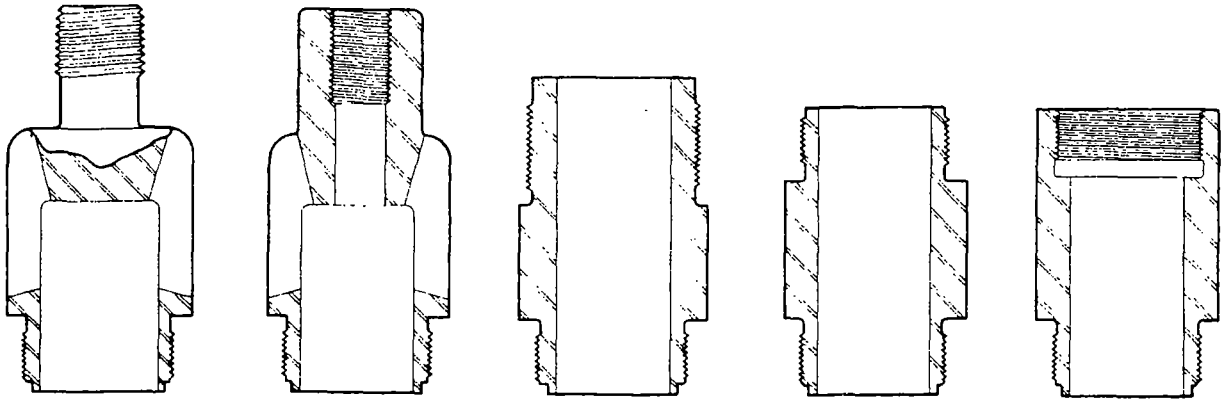
The cage insert is cast of a special cobalt alloy which has excellent corrosion and shock resistance. All sizes are designed to receive API balls. The cage shell is machined in a choice of materials — steel for normal or sandy wells and stainless steel for corrosive wells. Available in 1-1/4, 1-1/2, 1-3/4, 2, 2-1/4 and 2-3/4 in. sizes with a full range of top connections. Adaptable for all combinations as shown below.



VALVE CAGES

PUMP INSERT GUIDED CAGE

Adaptors for various insert cage combinations



3-WING OPEN-TYPE TOP CONNECTOR

3-WING OPEN-TYPE BOTTOM BUSHING

BARREL BOTTOM VALVE CONNECTOR

DOUBLE VALVE CONNECTOR

PIN END PLUNGER BUSHING

MECHANICAL BOTTOM LOCK HOLDDOWN

MECHANICAL TOP LOCK HOLDDOWN

CUP-TYPE HOLDDOWN

HOLDDOWNS

BOTTOM DISCHARGE VALVE

Sucker Rod Pumps and Parts

Holddowns

Mechanical Bottom Lock Holddown

The Monarch mechanical bottom lock holddown serves as a retrievable-type standing valve in tubing pumps, and as a bottom mechanical anchor for insert pumps. Complete assemblies are held to rigid API specifications Unit adapts to any API mechanical bottom lock seating nipple.

Mechanical Top Lock Holddown

The Monarch mechanical top lock holddown anchors and seals insert pumps on top Recommended for wells with high bottom-hole pressures or high-gravity oil. API specifications are rigidly held to ensure interchangeability with all API mechanical top lock seating nipples.

Cup-Type Holddown

The Monarch cup-type holddown seals and retains insert pumps on the top or bottom with friction cups Recommended for wells with low bottom-hole pressures or high-gravity oil Close component tolerances are maintained to ensure compatability with all API seating nipples

Bottom Discharge Valve

A necessity for economical pumping in many oil wells.

The Monarch Bottom Discharge Valve is designed to run on any stationary barrel, bottom anchored RWB or RHB pump By taking approximately 20% of the produced fluid from the pumping chamber and discharging it just above the pump holddown, the bottom discharge valve. (1) eliminates "sanding-in" of the pump, (2) increases net plunger stroke, (3) reduces compression in the sucker rod string on the downstroke thereby retarding rod breaks, (4) eliminates stagnant, corrosive fluids in the "dead" annulus between the pump and tubing, (5) prevents external corrosion damage to the pump barrel and internal corrosion damage to lower portion of the production tubing, and (6) increases the life of the traveling valve cage and the ball and seat

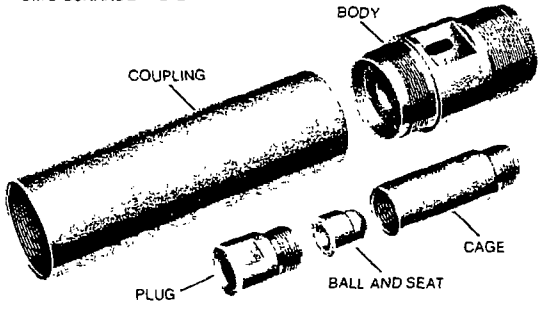
Helps prevent gas lock

An excessive pressure drop occurs through the traveling valve at high pumping speeds By installing a Monarch Bottom Discharge Valve, a portion of the fluid is displaced at the bottom, reducing the flow rate and pressure loss through the traveling valve. This keeps the gas in solution and aids in preventing gas lock.

Features

- Made from stainless steel to API specifications
- Fits all RHB and RWB pumps for 2-3/8 and 2-7/8 in tubing
- Only one special part required, others standard

BOTTOM DISCHARGE VALVE PARTS



TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Sucker Rod Pumps and Parts

"Clutched" Top Seal for Bottom Lock Pumps

The "Clutched" Top Seal was designed to seal off sand, scale, or other undesirable residue which usually forms around the seat of a bottom lock plunger travel pump. By using the "Clutched" Top Seal, a rubber packer isolates that space usually open to receive sand and scale. The "Clutch" allows the make-up or break-out of sucker rods

The rubber element is bonded onto a steel ring to minimize extrusion, to aid in releasing the rubber from the tubing wall, and to prevent the fluid from washing it away when the tool is released.

Positive Seal

The "Clutched" Top Seal provides a positive seal so that no pressure can reach the outside of the pump

Simple Installation

The "Clutched" Top Seal is installed on any conventional bottom lock pump by inserting it between the top insert collar and the rod guide cage. The tool sets by applying the weight of the rods through the tool. To release, merely pick up the rod string and the pump

"Clutched" Top Seals Complete

O.D. Size Tubing Tool Is To Be Installed In.	Pump Plunger Size
2-3/8"	1-1/16", 1-1/4", 1-1/2"
2-7/8"	1-1/2", 1-3/4", 2'
3-1/2"	2" 2-1/4", 2-1/2"

Specify 14 or 16 threads per inch

"Fin" Top Seal

This Fin Top Seal's design replaces the conventional Adapter with a cage and provides a larger I D to prevent sand, scale, etc., *from settling in the tubing annulus around the barrel of the* bottom lock pump. The fins on the element are flexible to prevent wear while running in the hole The Top Seal is threaded to adapt to the Valve Rod Guide and threaded on the bottom to screw into the upper end of the pump.

New Fin Top Seal Complete

O.D. Size Tubing Tool Is To Be Installed In.	Pump O.D. of Special Top Seals
2-3/8" (1-1/8" I D)	1-1/4" O D Pump
2-1/2" (1-1/4" I D)	2-1/8' O D Pump
2 7/8" (1-1/8" I D) for 2" Pump	

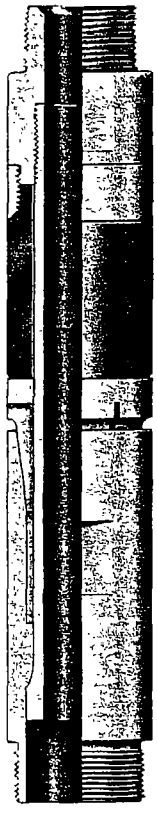
Cage shown for illustration only
Specify 14 or 16 threads per inch

Spiral Guide Couplings

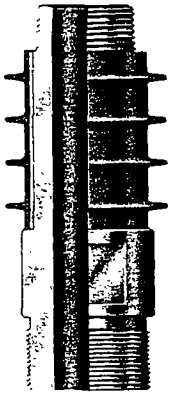
Spiral guide couplings are used to centralize sucker rods inside tubing They are faced with a special low-friction metal spray which produces an extremely high wear and corrosion resistant surface. Available in three sucker rod thread sizes for use in 2 and 2-1/2 in. tubing

Valve Pullers

Trico valve pullers feature simple design, ease of replacement in the field and sure operation even under adverse pumping conditions Available in 1-3/4, 2-1/4 and 2-3/4 in sizes, in tap-type or mechanical Sur-Hold models.

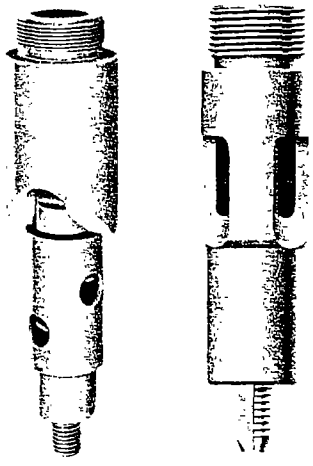


CLUTCHED TOP SEAL



FIN TOP SEAL

SPIRAL GUIDE COUPLING



VALVE PULLERS

Specialty Survey Tools for Electric Submersible Pumps

Crossover Assembly

The Crossover Assembly, or "Y" tool, allows downhole surveys to be taken with wireline equipment while electric submersible pumping equipment is in place and operating in the well The "Y" tool, called so because of its unique shape, provides a piping arrangement which offsets the pump, allowing survey tools to go straight through to the bottom of the well Surveys are recorded without disturbing the pumps' original function, even in directional wells drilled up to 75 degrees The "Y" tool also provides a method of blanking off while well is in a normal producing mode or while a survey is in process

The "Y" tool is useful for production operators in a number of monitoring applications, including the location of excessive water or gas entry from undesirable subzone contributors, tracking water and gas cap movement within a production reservoir, and monitoring pressures, temperatures and fluid levels

The Crossover Assembly has four major components

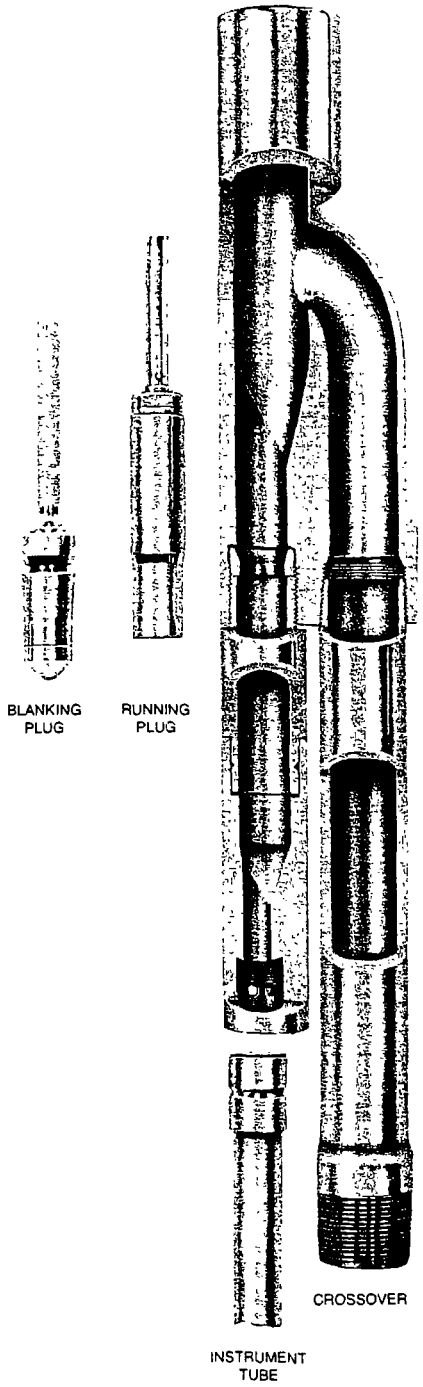
Crossover—The original crossover assembly is designed to run in 8-5/8 in or larger casing on 2-7/8 in tubing Smaller crossover assemblies are available for operation on 7 in ~26 lb casing and 2-3/8 in tubing A new 3 in , 9-5/8 in unit has also been developed to accommodate 5-1/2 in pumps and motors and the running of 1-11/16 in survey tools

The crossover body is streamlined using non-upset tubing and has no internal shoulders where survey tools can hang up The straight portion is made of heavy seamless tubing to prevent fluid cutout Each unit, after complete assembly, is hydraulically tested for leaks to above 3,000 psi The tool incorporates a seating nipple that houses a stainless steel seating ring and is capable of accommodating different types of plugs

Blanking Plug—The original blanking plugs are solid and made with API top-lock rod pump parts A flow-through type blanking plug, advantageous in many cases, is also available, again utilizing API top-lock rod pump components Each plug assembly has a fishing neck looking up, and when seated on the seating ring, the neck protrudes past the fluid port of the crossover assembly, allowing produced fluid to keep the neck washed free of sand The function of this plug is to blank off the instrument port section while the well is pumping normally

Running Plug—The running plug is similar to the blanking plug, except that a wire or recording line can be run through it The lines are normally 3/16 in or 5/16 in size A brass bushing in the tool functions as a stuffing box or packoff with minimum fluid bypass To prevent the loss of survey tools should wireline separation occur during retrieving operations, an overshot is provided on the bottom of the running plug containing slips sized to catch the survey tool fishing neck The survey tool and running plug can then be removed from their seated position by alternate means and the well returned to production after returning the blanking plug to its seated position

Instrument Tube—The instrument tube connects to the crossover assembly providing a passageway for survey tools alongside the submersible pump installation and into the producing zones There are no internal shoulders present throughout the assembly The tube is held straight and parallel to the installation by simply clamping it to the submersible unit with steel banding clamps The bottom of the pump instrument tube is cut at an angle and hangs at the bottom of the pump installation Instrument tubes may be joined together to obtain the correct overall length



CROSSOVER ASSEMBLY

TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Production Tools

Page Mechanical Tubing Anchor/Catcher

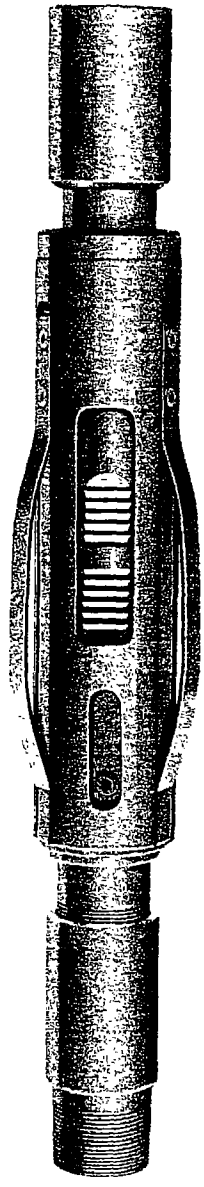
The Page Type "B" Mechanical Tubing Anchor/Catcher prevents movement of the tubing during the pumping cycle thereby increasing pump efficiency and decreasing rod, tubing and casing wear There are two sets of teeth — one facing up and one facing down — on each slip This double gripping action allows the tool to be set for both anchoring and catching at the time of initial installation. When set at the proper tension, the Type "B" Anchor/Catcher will prevent the tubing and rods from falling if the tubing should part

Features/Advantages

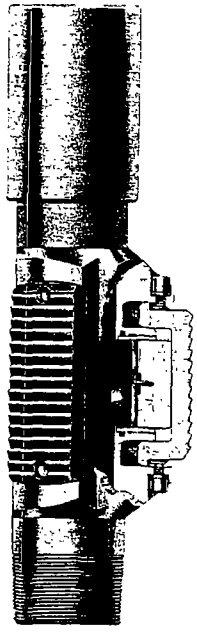
- Pure mechanical operation Sets with left-hand rotation and releases with right-hand rotation.
- Holds in tension and compression
- Stainless steel drag springs minimize corrosion and hydrogen embrittlement problems
- Setting threads coated for corrosion protection
- Emergency release possible with straight upward pull

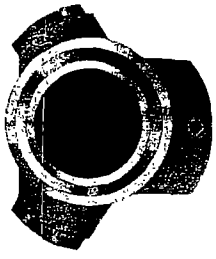
Specifications

Casing		Box Up Pin Down	Physical Characteristics			
O D (in)	T & C wt (lb)		O D.	I D	Weight (lb)	Length (in.)
			(in.)		Approximate	
4-1/2	9 5-13 5	2-3/8 EU 8 RD	3 750	1 938	40	40
5	11 5-18	2-3/8 EU 8 RD	3 750	1 938	40	40
5-1/2	13-23	2-3/8 EU 8 RD	4 500	2 000	65	35
5-1/2	13-23	2-7/8 EU 8 RD	4 500	2 375	65	35
6-5/8	17-32	2-7/8 EU 8 RD	5 500	2 437	100	30
7	20-38	2-3/8 EU 8 RD	5 500	2 000	100	35
7	20-38	2-7/8 EU 8 RD	5 500	2 437	100	30
7	17-20	2-7/8 EU 8 RD	5 500	2 437	100	30
7	17-38	3-1/2 EU 8 RD	5 500	3 000	90	39
7-5/8	20-39	2-7/8 EU 8 RD	6 250	2 437	125	30
8-5/8	24-49	3-1/2 EU 8 RD	7 000	3 000	155	37
9-5/8	32 3-47	3-1/2 EU 8 RD	8 000	3 000	175	37



MECHANICAL TUBING ANCHOR/CATCHER





TYPE "R" HYDRAULIC TENSION TUBING ANCHOR Top View

Production Tools

Page Type "R" Hydraulic Tension Tubing Anchor

The Page Type "R" Hydraulic Tension Tubing Anchor is a completely automatic tool which utilizes the weight of the fluid column in the tubing string to power the piston in the anchor. The load reversal from the pump is the dynamic force that moves the anchor into tension

Features/Advantages

- No tubing manipulation required to set anchor.
- May be pulled in activated position without damaging the casing
- Eliminates tubing coupling and casing wear
- Minimizes tubing thread leaks
- Reduces frequency of tubing jobs
- Maximum pump stroke increases pump efficiency.
- Smoothing out of reversal in pumping cycle reduces sucker rod breakage.

Operation

The Page Type "R" Anchor should be located in the tubing string as close to the pump as well conditions permit Because of the generous bypass area around the anchor, it may be run into the well at any speed without damaging the tool or casing wall.

After the pump is seated and the fluid level in the tubing string becomes higher than the fluid level in the annulus, the tubing will be anchored and the anchor holding power will be proportionate to the differential of the fluid levels in the tubing and the casing annulus.

A single Page Type "R" Tubing Anchor is generally used in the deeper pumping oilwells and where an insert type pump is applied The Type "R" Anchor is ideally positioned no farther than 60 ft away from the pump In shallower wells two "R" anchors may be combined to securely anchor the tubing string

SPECIFICATIONS

Casing O.D (in)	Casing Weight (lb.)	Tubing O.D (in) EU 8 RD	O D. Slips Retracted	I.D Anchor	Length
	9 5	2-3/8	4 000	1-15/16	17-1/8
4-1/2	11 6	2-3/8	3 906	1-15/16	17-1/8
4-3/4	16	2-3/8	3 906	1-15/16	17-1/8
	15	2-3/8	4 281	1-15/16	17-3/8
5	18	2-3/8	4 172	1-15/16	17-1/8
	11 5-13	2-3/8	4 406	1-15/16	17-3/8
	14-20	2-3/8	4 688	1-15/16	17-3/8
	23	2-3/8	4 625	1-15/16	17-7/8
5-1/2	14-20	2-7/8	4 688	2-7/16	18-1/8
	23	2-7/8	4 625	2-7/16	18-1/8
	17-28	2-3/8	5 625	1-15/16	18-7/8
	17-28	2-7/8	5 625	2-7/16	19-1/4
6-5/8	17-24	3-1/2	5 797	2-15/16	20-1/8
	24-28	3-1/2	5 625	2-15/16	20-1/8
	17-29	2 3/8	6 060	1-15/16	18-5/8
	29-35	2-3/8	5 875	1-15/16	18-5/8
	17-29	2-7/8	6 060	2-7/16	18-7/8
7	29-35	2-7/8	5 875	2-7/16	18-7/8
	20-29	3-1/2	6 060	2-15/16	20-3/8
	17	3 1/2	6 170	2-15/16	20-3/8
	29-38	3-1/2	5 770	2-15/16	20-3/8

Casing O.D. (in.)	Casing Weight (lb.)	Tubing O D (in.) EU 8 RD	O D. Slips Retracted	I.D. Anchor	Length
	24-33 7	2-7/8	6 625	2-7/16	18-7/8
7-5/8	39	2-7/8	6 500	2-7/16	18-7/8
	24-39	3-1/2	6 410	2-15/16	20-3/8
	24-32	2-7/8	7 719	2-7/16	21-3/8
	24-40	2-7/8	7 562	2-7/16	21-3/8
	44-49	2-7/8	7 375	2-7/16	21-3/8
	44-49	3-1/2	7 375	2-15/16	21-3/4
8-5/8	36-49	3-1/2	7 375	2-15/16	23-7/8
	24-40	3-1/2	7 750	2-15/16	21-3/4
	24-36	3-1/2	7 750	2-15/16	23-7/8
	24-36	3-1/2	7 750	2-15/16	23-7/8
	36	4-1/2	7 750	3-15/16	24-1/8
9	40-45	2-7/8	7 719	2-7/16	21-3/8
	32 3-47	2-7/8	8 500	2-7/16	22-1/8
9-5/8	32 3-47	3-1/2	8 500	2-15/16	22-1/2
	47-71	2-7/8	10 43	2-7/16	22-1/8
11-3/4	47-71	3-1/2	10 43	2-15/16	22-1/2

TRICO INDUSTRIES, INC. PRODUCTION EQUIPMENT

Production Tools

Page Type "B" Hydraulic Tubing Drain

Hydraulic tubing anchors should never be run without a drain. The Page Type "B" Hydraulic Tubing Drain provides a positive means of dumping the fluid in the tubing string without mechanical manipulation of the tubing. Sound production practices should always include the drain as standard equipment in all pumping wells to eliminate the potential hazards associated with pulling a wet string.

Features/Advantages

- Drains tubing above an anchor, packer or submersible pump equipped with a check valve and pump in a high angle or straight hole.
- Reduces pollution and fire hazard.
- Eliminates expense and wasted time of wet jobs
- Provides a means to pump down the tubing to kill a gassy well before pulling has begun.
- Full tubing I.D.

Operation

The Page Type "B" Drain should be installed box up × pin down at the desired depth in the tubing string For hydrostatic head at the drain, and determination of the proper shear unit (psi), multiply 433 psi/ft. × drain depth and add a 1,000 psi *safety factor Select calculated shear unit or next higher unit if* calculations exceed shear pin values closest to calculated shear unit.

Specifications
Page Type "B" Hydraulic Tubing Drain

Size (in.)	Weight (lb.)	Maximum Tool O.D. (in.)
2-3/8	11	3-13/16
2-7/8	19	4-7/16
3-1/2	27	5-3/16
4-1/2	38	6-5/32
Shear Pressures Available (PSI)		
1,200	3,000	4,500
1,500	3,100	5,000
2,000	3,400	5,500
2,100	4,000	6,000
2,500		

Page Type "S" Hydraulic Tubing Drain

The Page Type "S" Tubing Drain is more specialized than the Type "B" model. Its small O.D. makes it ideal for use in small casings. The large drain ports permit rapid draining of heavy crude. The Type "S" is furnished with multiple shear pins in order to provide the desired shearing pressure.

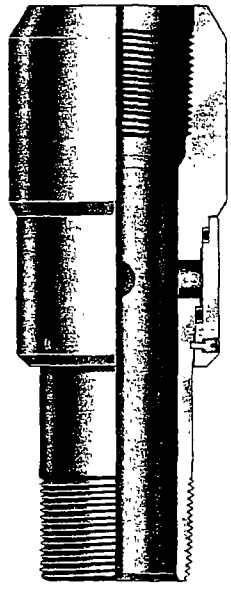
Features/Advantages

- Large drain ports for increased flow area.
- Small O D. for use in small casings.

Operation

The Page Type "S" Drain should be installed box up × pin down at the desired depth in the tubing string For hydrostatic head at the drain, and determination of the proper drain element, multiply 433 psi/ft. × drain depth and add a 1,000 psi safety factor. The pressure is equal to or should slightly exceed that value when installing shear pins. Only the required number of pins should be used to avoid over-pressuring the tubing.

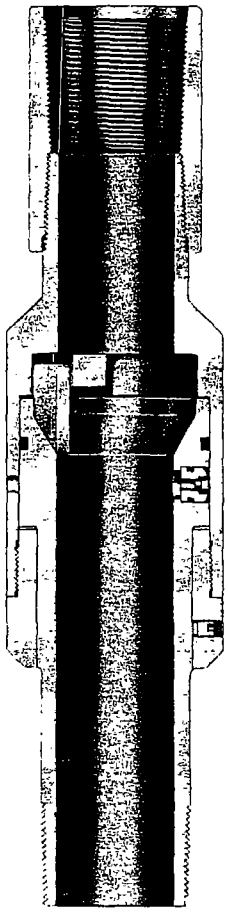
TYPE "B" HYDRAULIC TUBING DRAIN



TYPE "S" HYDRAULIC TUBING DRAIN

Specifications
Page Type "S" Hydraulic Tubing Drain

Tubing O.D. (in.)	Tool O.D. (in.)	Tool I.D. (in.)	Port Flow Area (in.^{2})	Tool Length (in.)	Tool Number	Shear Value (PSI/DIN)
2-3/8	3-7/16	1-5/16	1 77	11-3/4	12-05-00-01-0	1,000
2-7/8	3-7/8	1-7/16	2 76	12	12-06-00-01-0	900
3-1/2	4-1/2	2-15/16	3 98	13-5/8	12-07-00-01-0	750



TYPE "R" MECHANICAL TUBING DRAIN

Production Tools

Page Type "R" Mechanical Tubing Drain

For draining tubing to any depth above a tubing anchor or packer by a 310° righthand rotation.

It helps eliminate pollution, fire hazard and the expense and wasted time from pulling a wet string When closed, it holds well pressure internally and/or externally and offers full tubing I.D. and a means to pump down the tubing to kill a gassy well before pulling has begun.

Because it is mechanical instead of hydraulic, the "R" must have a backup to actuate it in the hole and is used primarily with Page Type "R" Tubing Anchors (tubing drains should always be run with hydraulic tubing anchors).

Features

- Has a minimum number of parts and seals.
- A friction pad holds the drain closed, safeguarding against accidental opening while running in.
- A Teflon bearing ring reduces the friction normally found in tools held in tension, eliminating 90% of the torque required to turn the drain.

Installation and Operation

Before running in, make certain the drain is closed by turning the sleeve left to the radial stop.

Install the "R" drain approximately two to three joints above the tubing anchor (box thread up) to position the drain out of sand deposition and allow alignment above any offset in the anchor.

To open, relieve the tension in the tubing string (if the head permits) and rotate the tubing to the right. A 310° rotation at the drain will open the tool.

Specifications
Page Type "R" Mechanical Tubing Drain

API Upset Tubing Size (in.)	Tool O.D. (in.)	Tool I.D. (in.)	Overall Tool Length (in.)	Assembly Number	Tool Weight (lbs.)
2-3/8	3-3/4	1-15/16	12	10-050-100	18
2-7/8	4-1/2	2-7/16	13	10-060-100	22
3-1/2	5-1/4	2-15/16	13	10-070-100	30

TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Production Tools

Page "On and Off" Attachment

The Page "On and Off" Attachment is a unique, precision made tool that provides a means of getting on or off a sucker rod string at any point desired in the string. The tool is rugged and simple in design and is assembled from a minimum number of parts to reduce the possibility of failure It is a must for all wells with tubing pumps and for wells which need frequent maintenance because of paraffin buildup.

Both the mandrel and socket section of the tool are milled with nine extra heavy lugs to help support the load and ensure long life.

Features/Advantages

- Fish broken rods without pulling pump.
- Operate paraffin scrapers without having to unseat pump.
- Virtually eliminate stripping jobs
- Run pumps larger than tubing.

Operation

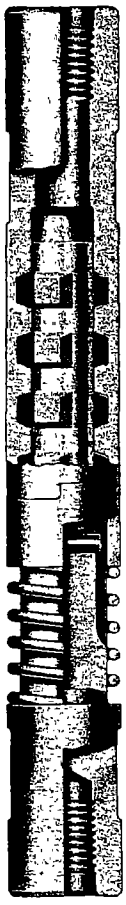
The mandrel part of the Page "On and Off" Attachment is normally run above the pump or plunger The socket end of the tool is run on the sucker rod string. Engagement is accomplished by lowering the rod string over the mandrel, compressing the spring and then rotating 1/4 turn to lock the two sections together, counterclockwise if the tool is a right-hand release model and clockwise if a left-hand release model NOTE. In tubing pump installations it is important to have a means of clutching or locking the plunger to permit engagement and disengagement of the tool

The tool is released by lowering the rods, turning 1/4 turn and picking up.

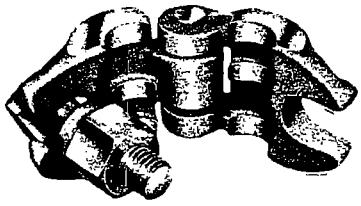
Specifications
Page "On and Off" Attachment

Sucker Rod Size (in.)	Sucker Rod Box Size (in.)	Nominal Tubing I.D. (in)	Tool O.D. (in.)
5/8	15/16	1-1/2	1-1/4
		2	1-5/8
3/4	1-1/16		
		2-1/2	1-13/16
7/8 3/4 7/8 1	1-3/16 1-1/16 1-3/16 1-3/8	3	2-3/16

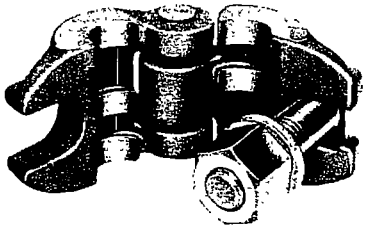
Heavy duty springs available for use in heavy pumping wells



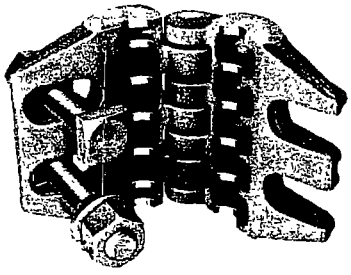
"ON AND OFF" ATTACHMENT



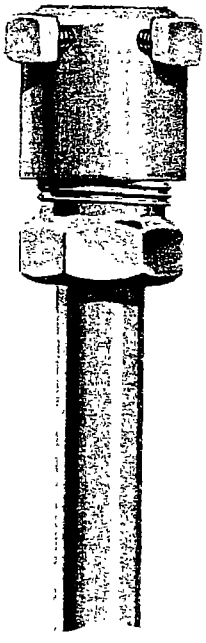
TITAN JUNIOR
(Single Bolt)



TITAN I



TITAN II
POLISHED ROD CLAMPS



POLISHED ROD LINERS

Production Tools

Polished Rod Clamps

Titan super-grip polished rod clamps are offered in one-, two-, and three-bolt models.

Monarch Titan polished rod clamps are designed for working loads ranging from 13,000 to 40,000 lb. The unique placement of the hinge pin and bolt results in superior gripping capability The bolts and nuts have smoothed and rounded edges for safety and are easily accessible for tightening

Each Titan clamp is machine bored and reamed to assure exact polished rod fit with both ends precisely machined 90° to the polished hole Clamp bodies are made of heat-treated forged steel with cadmium-plated, heat-treated bolt, washer, nut and hinge pin

TITAN JUNIOR (Light to Medium Duty)

Rod Size	Single Bolt		Double Bolt		Triple Bolt	
	Recommended Working Load 13,000 lb		Recommended Working Load 26,000 lb		Recommended Working Load 40,000 lb	
	Weight (lb)	Part Number	Weight (lb)	Part Number	Weight (lb)	Part Number
1-1/8	4	194-C12-050	8	194-C12-250	12	194-C12-350
1-1/4	4	194-D12-050	8	194-D12-250	12	194-D12-350
1 (Line Pipe)	4	194-A12-150	—	—	—	—

Component Parts Bolt, Nut, and Washer—194-A12-050

TITAN I (Medium Duty)

Rod Size	Single Bolt	
	Recommended Working Load 25,000 lb	
	Weight (lb)	Part Number
1-1/8	10	194-C12-100
1-1/4	10	194-D12-100

Component Parts Bolt Nut, and Washer—194-A12-100

TITAN II (Heavy Duty)

Rod Size	Double Bolt	
	Recommended Working Load 40,000 lb	
	Weight (lb)	Part Number
1-1/8	24	194-C12-200
1-1/4	24	194-D12-200
1 1/2	24	194-F12 200

Component Parts Bolt, Nut, and Washer (two required)—194-A12-200

Polished Rods

The surface of Monarch polished rods is finished by a unique process that enhances a positive seal at the wellhead stuffing box This quality finish coupled with the finest steels in the industry assures long trouble-free service.

Thermo-Sprayed rods are also available for severe service

Polished Rod Liners

Available in bronze and Armorcote versions.

The Monarch one piece polished rod liner eliminates the confusion which is sometimes caused by the great variety of threads found on different liner tubes The packing head is an integral part of the liner tube Both the tube and head are replaced as a unit

Monarch polished rod liners are available in bronze and hard surfaced (Armorcote) versions. Bronze liners are normally supplied in 3', 3'-4", 3'-6", 4', 5', 6', 7', 8', 9', and 10' lengths Armorcote units are supplied in 3', 3'-6", 4', 5', 6', 7', 8', 9', 10', 12', 14', 16', 18' and 22' lengths.

TRICO INDUSTRIES, INC. PRODUCTION EQUIPMENT

Production Tools

Trico Stuffing Boxes

The basic design of the Trico Stuffing Box has been proven in thousands of applications throughout the world. It has been the first choice of experienced oilmen for years and has established an enviable reputation for long-term dependable service. The unit is ideally suited for wells that tend to pump off or operate through intermittent producing periods and can be successfully operated at working pressures up to 1,500 psi. It features a free-floating lubricated upper section which assures self alignment and reduces packing burnout. Lower pack-off on the Double-Pac model allows packing changeout while under pressure.

Vernon Stuffing Box

The Vernon Stuffing Box directs fluid pressure from the well into the molded packing element causing the packing to expand and seal off around the polished rod. This means that the packing is tight against the rod only when there is pressure on the stuffing box. Since the packing is only in tight contact during production, the packing elements last longer It has been tested for pressures up to 3,000 lb. An oil reservoir in the race follower provides constant lubrication while pumping or heading with gas.

All standard polished rod sizes and thread combinations are available in two models: Standard and Pack-Off.

API Pony Rods

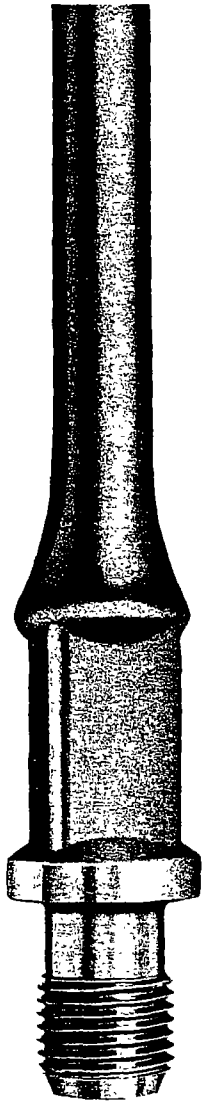
Monarch API pony rods provide exceptional tensile strength and load factors. Control of surface decarburization also adds to their excellent uniform mechanical properties.

All Monarch pony rods are forged from special alloy steel which is normalized and tempered and manufactured to API class D specifications. Fully rolled; cold-formed threads assure a precise, smooth, reinforced thread structure not attainable by normal machine-cut threads.

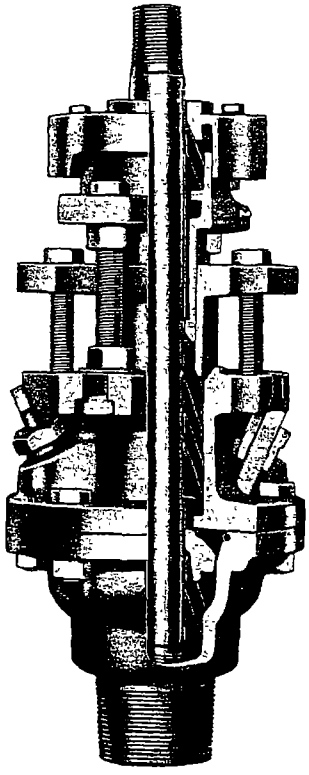
MECHANICAL PROPERTIES:
115,000 psi Minimum Tensile Strength
140,000 psi Maximum Tensile Strength

Sucker Rod Couplings

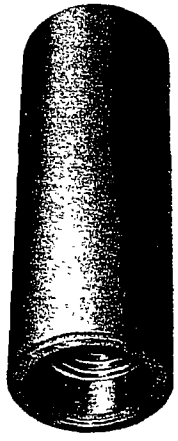
Trico sucker rod, polished rod, and sub-type couplings are available in all sizes. They are manufactured with fully rolled, cold-formed threads. A low friction metal-sprayed version is available which is highly resistant to abrasion and corrosion.



PONY ROD



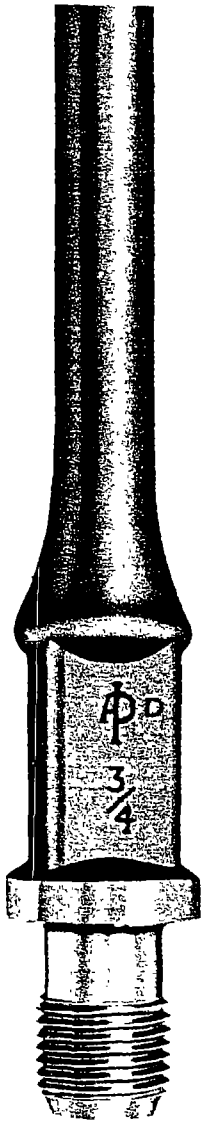
TRICO DOUBLE-PAC STUFFING BOX



SUCKER ROD COUPLING

PRODUCTION EQUIPMENT

TRICO INDUSTRIES, INC.



SUCKER ROD

Sucker Rods

Trico Sucker Rods are manufactured in one of the newest, most modern facilities of its type in the industry They are of a one-piece forged double-pin construction designed to meet or exceed all new API specifications Trico Sucker Rods feature fully-rolled, cold-formed threads that ensure a precise, smooth reinforced thread structure not attainable by normal machine-cut threads Metal is displaced rather than removed and the thread root is strengthened by the resultant cold working Trico rods are cleaned by shot blasting to remove any scale or oxidation and then liberally coated with rust inhibitors and carefully racked in bundles to ensure safe transport and handling

Trico Grade C11 (API Class C) Sucker Rod

The C11 rod is designed for light to medium load applications in wells not known to be corrosive. It is manufactured to API specifications from high grade carbon-manganese AISI C-1536 steel which is full-normalized and then shot blasted after heat treating. Available in 25 and 30 ft lengths in 5/8, 3/4, 7/8 and 1 in. sizes. Each rod is furnished with one API Class T Sucker Rod Coupling

Trico Grade D61 (API Class D) Sucker Rod

The D61 is a low alloy carbon-manganese-chromium-molybdenum rod with high tensile strength recommended for heavy load applications in noncorrosive wells It is manufactured to API specifications from AISI 4142H steel which is fully normalized, tempered and then shot blasted after heat treating Available in 25 and 30 ft lengths in 5/8, 3/4, 7/8 and 1 in sizes. Each rod is furnished with one API Class T Sucker Rod Coupling.

Trico Grade D63 (API Class Special Alloy) Sucker Rod

The D63 is a special alloy sucker rod that combines the high tensile strength of the D61 and corrosion resistance It is recommended for heavy load applications in inhibited corrosive environments It is manufactured to API specifications from special alloy steel, which is fully normalized, tempered and then shot blasted after heat treating D63 sucker rods have minimum yield and tensile strengths of 95,000 and 115,000, respectively

Available in 25 and 30 ft lengths in 5/8, 3/4, 7/8 and 1 in sizes. Each rod is furnished with one API Class T Sucker Rod Coupling.

CHEMICAL ANALYSIS OF TRICO SUCKER RODS

Grade	Carbon	Manganese	Phosphorus	Sulphur	Silicon	Nickel	Chromium	Molybdenum	Copper	Steel Type
	Percent									
C11	0 30–0 37	1 20–1 50	0 04 Max	0 05 Max	0 20–0 30	—	—	—	—	1536
D61	0 40–0 45	0 75–1 00	035 Max	0 04 Max	0 20–0 35	—	0 80–1 10	0 08–0 12	—	4142
D63	0 22–0 28	0 65–0 95	0 04 Max	0 04 Max	0 15–0 30	1 20–1 50	0 60–0 90	0 20–0 30	0 40–0 70	Special

MECHANICAL PROPERTIES OF TRICO SUCKER RODS

Grade	Yield Strength (1000 psi)	Tensile Strength (1000 psi)	Elongation in 8 inches (%)	Reduction in Area (%)	Izod Impact (ft-lb)	Brinell Hardness	Heat Treatment
C11	60/75	90/115	18–23	50–65	60–90	190–205	Normalized
D61	95/110	115/140	10–15	50–65	45–65	241–280	Normalized & Tempered
D63	95 Min	115 Min	14 Min	50–60	—	227–260	Normalized & Tempered

TRICO INDUSTRIES, INC. **PRODUCTION EQUIPMENT**

Well Service Tools

Rod Hooks

Monarch rod hooks are designed for operating speed and safety. They feature a special snap-in latch mechanism which permits the elevator bail to enter the book opening without the latch being released by the operator. When the elevator bail is engaged the hook spring automatically forces the latch to a locked position, holding the elevator secure until released. The latch spring is enclosed in a housing to prevent fouling. Monarch rod hooks are made of forged high-grade steel, heat treated for long life.

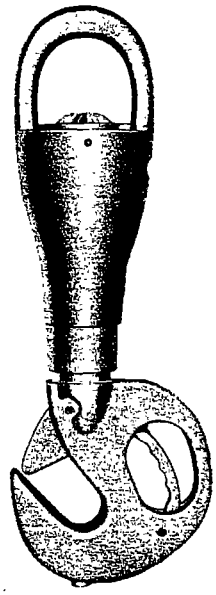
Both the short Snap-in Rod Hook (33 lb.) and long Snap-In Spring Lift Rod Hook (55 lb.) have a safe working capacity of 35,000 lb.

Snap-In Spring Lift Rod Hook

The Monarch Snap-In Spring Lift Rod Hook has an extra long shank containing a heavy coil spring which supports the section of rods being pulled. The spring protects the rod threads while the rods are being removed from the tubing. The additional weight of this hook assists in unspooling the line from the pulling unit. Overall length is 23 in. Hook opening is 1-7/8 in. To order this hook, specify Part No. 554-578-800.

Snap-In Rod Hook

The Monarch Snap-In Rod Hook has a standard shaft length and an overall length of 18-1/2 in. Hook opening is 1-7/8 in. Order Part No. 554-578-600 for hook, complete.



SNAP-IN SPRING LIFT ROD HOOK

Elevators

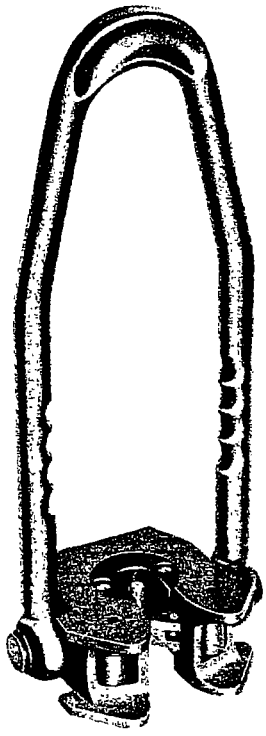
The Monarch line of elevators is unsurpassed in strength, ease of operation, and safety Each of the three models feature interchangeable heat treated steel plates which allow quick conversion of the basic elevator bodies to various rod or pipe sizes. Additional savings are realized because work plates can be replaced instead of replacing the entire elevator.

Super Lift-A Rod Elevator

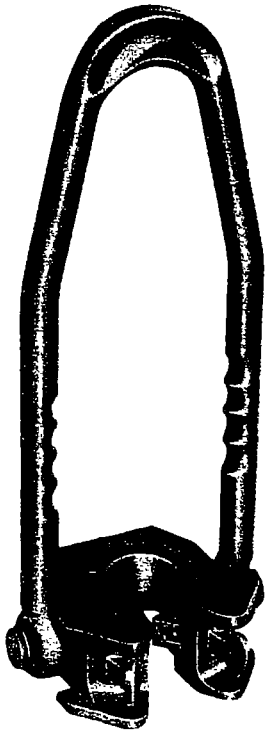
Interchangeable rod plates are of hardened steel and give you the economy of adapting the elevator for 1/2, 5/8 and 3/4, 3/4 and 7/8, and 1 in. rods. All parts are fabricated from high grade steel The basic elevator design provides excellent balance and non-tilt performance. Large access to the front and rear release levers assures easy, safe latching and unlatching Long bails (19 in.) provide free action for sub elevators

Super Lift-B Rod Elevator

The Trico SL-B solid body elevator is a heavy duty elevator for deep wells. Due to its extra weight, it will generally be the most beneficial in use on the larger rod sizes The maximum capacity of the elevator is 41,000 pounds.



SUPER LIFT-A PLATE TYPE



SUPER LIFT-B SOLID BODY

Well Service Tools

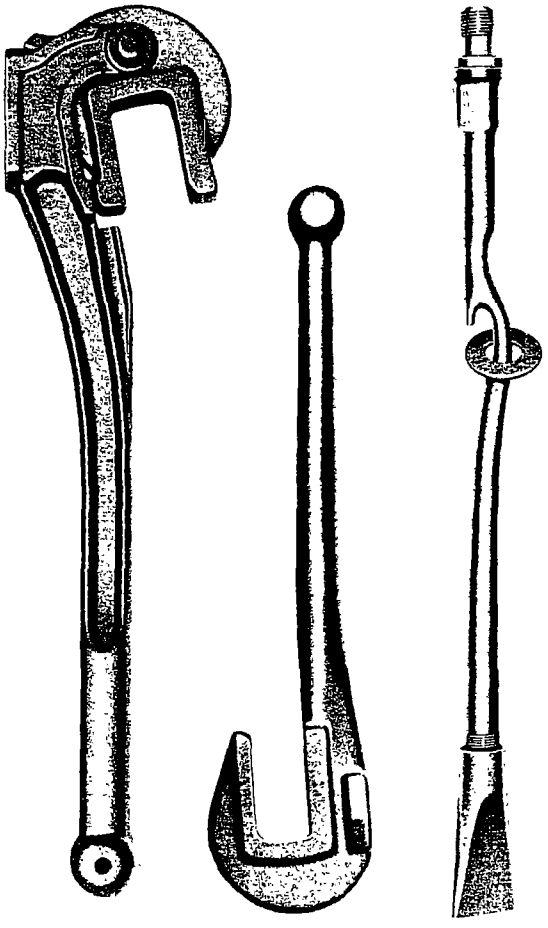
Sucker Rod Wrenches

Rod Buster

The Monarch snap-action Rod Buster Sucker Rod Wrench is made of high-grade alloy steel, hardened to resist wear. This lightweight (6 lb) rugged tool is excellent for manual makeup and breakout of sucker rod joints It features a counterbalanced grip to reduce fatigue. The cross-section of the handle is oval which provides a natural resistance to the wrench spinning when gripped The head is spring-loaded and a hardened steel bushing is provided between the wrench head and handle Three sizes are available. Part No. 555-560-050 for 3/4 and 7/8 in API rods, and Part No 555-560-075 for 1 in API rods. There is no wear on the rivet during wrench use Small part repair kits are available for the Rod Buster Wrench.

Spin Wrench

The Monarch Sucker Rod Spin Wrench is a one piece tool manufactured from high tensile strength alloy steel The wrench opening fits the square on sucker rods and is accurately machined to exact size. The tool is designed for perfect balance to reduce user fatigue The spin wrench is available in two sizes. Part No. 555-559-500 is furnished for 5/8 in. API rods and Part No 555-559-600 is used for 3/4 and 7/8 in. API rods



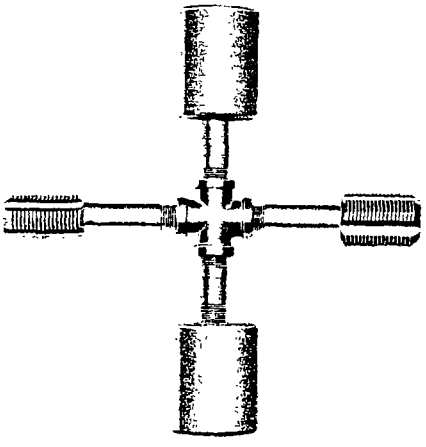
ROD BUSTER SUCKER ROD WRENCH — SPIN WRENCH — PARAFFIN KNIFE

Paraffin Knife

A proven paraffin-removing feature makes the Monarch paraffin knife a rugged, yet flexible tool The units are available in the following sizes:

- 1-1/2 in Paraffin Knife complete with 5/8 in. API pin (Part No. 556-792-400).
- 2 in. Paraffin Knife complete with 5/8 in. API pin (Part No 556-792-600).
- 2 in. Paraffin Knife complete with 3/4 in API pin (Part No 556-793-000)
- 2-1/2 in Paraffin Knife complete with 3/4 in API pin (Part No. 556-792-700)

Replaceable scraper disks are also available for 1-1/2, 2-1/16, 2-3/8, and 2-7/8 in. tubing.



COMBINATION TAP AND DIE SET

Tap and Die Sets

These handy Monarch tools are available in combination or single rod size models and provide an on-the-spot thread chaser for use on all well servicing units They allow you to repair rod threads and couplings in the field by setting correct factory thread pitch and contact area.

The combination models provide two taps and two dies in one tool. Three models are available Part No 556-786-010 for 5/8 and 3/4 in. API threads, Part No. 556-786-020 for 3/4 and 7/8 in. API threads, and Part No 556-786-030 for 7/8 and 1 in API threads.

In producing areas where a single sucker rod size is most common, single size tap and die tools are available These units come in a choice of 5/8, 3/4, 7/8, or 1 in API

All Monarch tap and die tools are made of high quality hardened steel They are not designed to cut new threads

TRICO INDUSTRIES, INC. PRODUCTION EQUIPMENT

Well Service Tools

Sucker Rod Sockets

Reversible-Type Sucker Rod Socket

The Monarch Reversible-Type Sucker Rod Socket is a combination slip socket for retrieving sucker rods, polished rods, and sucker rod couplings (except hard surfaced couplings). Each socket is fitted with a reversible slip unit which has reverse wickers in each end. When fishing for couplings, the large ID end of the reversible slip is run in the down position For fishing rods alone, the slip unit is reversed. The large ID end of the slips will catch two different sizes of boxes, while the other end will catch two different size of rods. The slip units are held in place by control rings Regular sockets, available to run in either 2 or 2-1/2 in tubing, are capable of fishing varied rod and coupling sizes. When ordering, specify the rod and coupling sizes to be retrieved.

Combination Sleeve-Type Sucker Rod Socket

The Combination Sleeve-Type Sucker Rod Socket is designed for fishing rod body breaks and rod couplings. It has an upper bowl fitted with rod slips suitable for catching two different size rods, and a lower bowl fitted with a single end slip unit, designed to engage and catch one size sucker rod coupling.

Regular sockets are available to run in either 2 or 2-1/2 in. tubing. These units are capable of fishing varied rod coupling sizes. When ordering, specify the rod and coupling sizes to be retrieved.

Combination Snapover Socket

The patented Monarch Combination Snapover Socket is designed to catch hardened couplings which cannot be engaged with wickered slips. An expansion snap ring, seated on the shoulder within the bowl, is held in place by a combination sleeve and inner bowl The hardened coupling enters the bowl, and the ring is forced over the coupling and snaps into position beneath the shoulder on the coupling.

The combination sleeve and inner bowl is fitted with a set of wickered rod slips made to catch two different size rods Expansion snap rings are furnished to fit standard couplings, and are inserted and removed through the top of the bowl. Both regular and oversize sockets are available to run in either 2 or 2-1/2 in tubing. These units are capable of fishing varied rod and coupling sizes. When ordering, specify the rod and coupling sizes to be retrieved

REVERSIBLE-TYPE SUCKER ROD SOCKET

COMBINATION SLEEVE-TYPE SUCKER ROD SOCKET

COMBINATION SNAPOVER SOCKET

LITTLE GIANT SUCKER ROD SOCKET

SLIM HOLE LITTLE GIANT SUCKER ROD SOCKET

SLIM HOLE COMBINATION SNAPOVER SOCKET

MOUSETRAP SUCKER ROD SOCKET

SWIVEL ROPE SOCKET

Well Service Tools

Sucker Rod Sockets

Little Giant Rod Socket

The Little Giant Sucker Rod Socket is a combination socket for running inside tubing and catching rods (not including boxes). It is also used for running inside a working barrel with corresponding size tubing. Regular sockets are available to run in 2 in. tubing These units are capable of fishing varied rod sizes. When ordering, specify the rod size to be retrieved.

Slim Hole Little Giant Sucker Rod Socket

The Slim Hole Little Giant Sucker Rod Socket is fitted with conventional wickered slips for catching rod breaks in 1-1/2 in. tubing, but it will not catch couplings. Socket assembly with 5/8 in. API pin is Part No. 552-568-400. Slips are provided to catch 1/2 or 5/8 in rods.

Slim Hole Combination Snapover Socket

The Slim Hole Combination Snapover Socket contains an expansion snap ring for catching hardened couplings (which cannot be engaged with wickers)

The upper portion contains conventional wickered slips for catching rods. Regular sockets are available to run in 2 in tubing. These units are capable of fishing varied rod and coupling sizes.

Mousetrap Sucker Rod Socket

The Mousetrap Sucker Rod Socket is employed when other fishing tools have been unsuccessful. We recommend that it be used to fish no more than 3,000 ft. of sucker rods at any one time. The 2 in. socket cannot be used if the rod break is 16 in. or more above the coupling (in the rod string), because it would be impossible for the rod to pass the sucker rod connection on top of the mousetrap.

The regular 2-1/2 in. socket (Part No. 552-520-100) is used to catch 1-3/16 in. O.D couplings in 2-1/2 in. tubing.

Swivel Rope Socket

Swivel Rope Sockets are used to connect the wireline to the sinker bar for swabbing. The swivel permits free turning of the swab under load. Sockets are furnished in two sizes, 1-3/8 in and 1-3/4 in. O D. for wire rope up to 7/8 in. diameter. The 1-3/4 in. O.D. is available with API sucker rod box sizes for 5/8, 3/4, and 7/8 in. sucker rod pins, 1-3/8 in. O.D. with 5/8 in. box.

The 1-3/4 in. O D socket is made with a 1-3/8 in. O.D × 4 in. long fishing neck on the upper half of the socket The 1-3/8 in. O.D. socket has a 1-1/8 in. O D × 1-1/2 in. long fishing neck on the upper half of the socket The 1-3/8 in O D socket has a 1-1/8 in. O D × 1-1/2 in. long fishing neck. The 1-3/8 in socket complete is specified as Part No 556-578-310. The 1-3/4 in. socket complete is Part No. 556-578-300

TRICO INDUSTRIES, INC. PRODUCTION EQUIPMENT

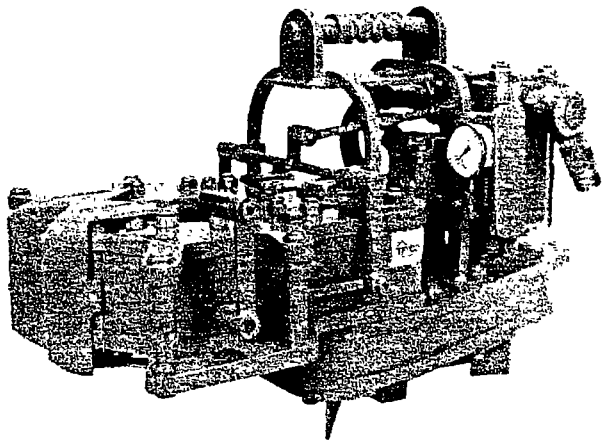
Well Service Tools

Super Sucker Rod Power Tong

Specifically designed to rapidly makeup and breakout 5/8 to 1-1/8 in. sucker rods, the SSR Power Tong from Trico features optional operator-controlled torque adjustments at the tool, a direct-reading torque gauge, tandem control locations and a gear-type hydraulic drive

With the rugged construction you've come to expect from Trico, the SSR Power Tong applies consistent torque to each coupling in the rod string—from the first to the last joint—quickly and easily.

The upper and lower gear cases are constructed of high-strength flat plate with replaceable bearing housings Frame tie bolts utilize a "thru-bolt" design to eliminate threads in the gear case members and this, combined with the all-spur gear drive mechanism, results in a compact, reliable tool that sets a new standard in sucker rod power tongs



SUPER SUCKER ROD POWER TONG

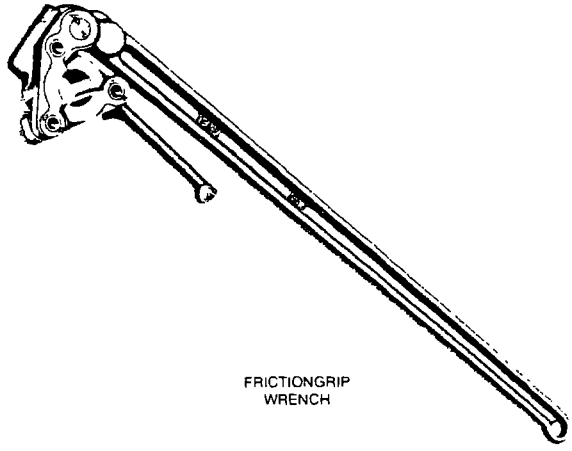
Pump Shop Equipment

Monarch manufactures a complete line of pump shop equipment including horizontal and vertical storage racks, heavy duty part carts, wash tanks, pump repair stands and benches, bore gauges, and friction wrenches and vises

Frictiongrip Wrench

The Trico Frictiongrip Wrench is designed for use on smooth surfaces of pipe, tubing, piston rods, pump barrels, shafts, fittings, and all cylindrical objects where distortion, teeth marks or scratched surfaces must be avoided. The jaws have smooth surfaces that completely encircle the object they grip preventing crushing or marring of the surface One jaw is spring-loaded, which provides an instant, non-slip grip and a perfect ratcheting action

The Frictiongrip Wrench has another important advantage when fittings or threaded connections are made up or broken loose. Because no distortion or crushing occurs between the male and female threads, additional friction is not introduced into the connection This permits makeup or breakout with minimum effort and allows the user to "feel" when a fitting is made up to the correct torque



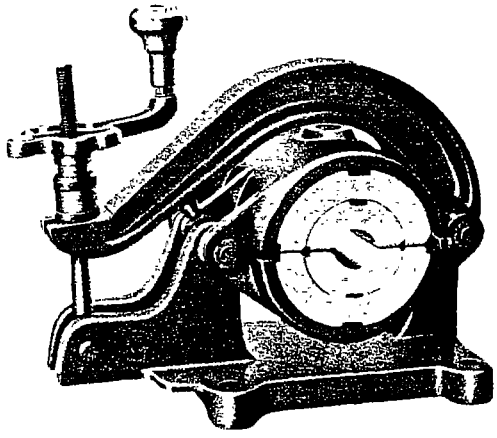
FRICTIONGRIP WRENCH

Frictiongrip Vise

The Trico Frictiongrip Vise is designed for holding tubing, pump barrels, piston rods and all cylindrical objects where the surface must be protected from scoring and distortion The vise will not crush thin wall tubing or pipe because the soft aluminum bushings completely encircle the object being held

Available In Two Sizes

The Frictiongrip Vise comes in two sizes, 3-1/2 and 5-1/2 in The smaller model accepts bushing sets that will handle diameters from 7/8 through 2-3/4 in The 5-1/2 in. model normally handles diameters from 2-7/8 through 5 in However, by installing an adapter bushing, the 5-1/2 in unit will also accept all the bushing sets available for the 3-1/2 in vise

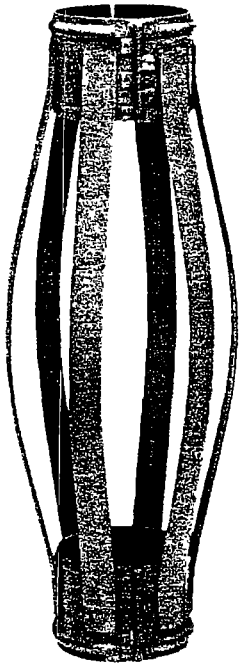


5 1/2 INCH FRICTIONGRIP VISE WITH ADAPTER BUSHING SET AND 1-1/2 INCH BUSHING SET INSTALLED

WELL COMPLETION EQUIPMENT

TRICO INDUSTRIES, INC.

Centralizers



STANDARD CENTRALIZER
Product No AA02
Latch-On-Type

B & W Centralizer Equipment

Featuring the Kon-Kave Bow

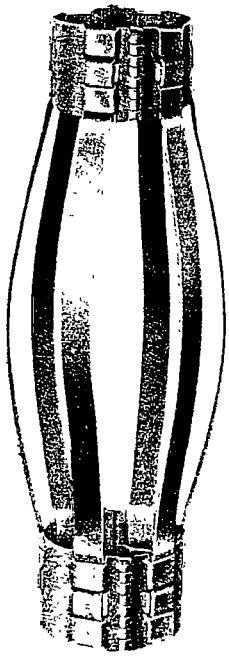
B & W centralizers center the casing in the hole during primary cementing operations to prevent channeling and effect a 360° cement fill Where scratchers are run, B & W centralizers center the casing to provide uniform scratching over the entire face and height of the cement fill The "sled" effect facilitates the running of casing regardless of hole direction, hole diameter or irregularities in the formation Centralizers also agitate drilling fluid and cement slurry in the critical area between casing and formation

B & W centralizers are placed at preselected points in the well to obtain a more uniform annular cement space Force and spacing curves are available to help determine spacing recommendations

B & W centralizer collars are sized to API standards After assembly, every B & W centralizer is thermally and mechanically stress relieved and fully tested before shipment

B & W *supplies the widest range of centralizers in the industry* There's a B & W centralizer to meet every tubing, liner, or casing-to-hole-size combination per API Std 10D Specification

Item	Type	O D = Casing O.D. +		Length
		Maximum	Minimum	
AA02	Latch-On	4-7/8"	1"	27"



NON-WELD
SERIES N
CENTRALIZER
Product No NA
Latch-On Type

B&W Non-Weld Series "N" Centralizers

The B & W Non-Weld Series "N" Centralizer is specifically designed for *international markets The non-weld construction allows manufacturing* in countries where the product is being used As shipped from the U S , the components are packaged compactly, requiring up to 75% less storage space than conventional welded centralizers

The smooth curvature of the bow springs allows for installation over casing couplings without interference The bow springs are mechanically locked to the collars, providing the support and flexibility necessary for the most stringent conditions

The reinforcing ribs and hinge design provide resistance to deformation under the worst conditions The allow steel hinge pins are permanently locked in position and will not work loose

Series	Type	O D. = Casing O D +		Length
		Maximum	* Minimum	
NA	Latch-On	2-1/2"	1"	22-1/2"
NB	Latch-On	3"	1-1/8"	22-3/4"
NC	Latch-On	4-3/8"	1-1/4"	25-1/2"
ND	Latch-On	6"	1-1/4"	25-1/4"

* When centralizer is installed between stop collars or casing collar and stop collar

TRICO INDUSTRIES, INC.

WELL COMPLETION EQUIPMENT

B & W Basic Centralizer Selection Guide

LEGEND

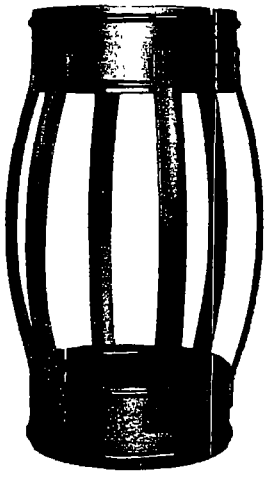
R = Recommended Centralizer
x = Optional Use
• = 125 Bow Thickness
▲ = 170 Bow Thickness
■ = 200 Bow Thickness
□ = Shaded Area, Not Avail

Series			AA		AG		AB		AF		AC		AD		AE	
Overall Length			27"		23"		25"		27"		32'		37"		42"	
Centralizer O D = / Casing O D +			Max 4½"	Min * 1"	Max 3¾"	Min * 1"	Max 2⅝"	Min * 1"	Max 2⅜"	Min * ¾'	Max 6½"	Min * 1"	Max 6⅝"	Min * 1"	Max 10⅛"	Min * 1"
Suggested Use			Peak performance for normal centering operations to most depths		For normal centering operations		Provide excellent stand-off in close tolerance holes		For use on liners or areas of very restricted clearance		Use in deviated holes where optimum strength is required		Gravel Pack Effective in directional hole operations, oversize hole conditions, & gravel packing Exerts strong centering force in open hole			
API Casing Size To Run		Open Hole or Casing ID	KON KAVE BOW CENTRALIZERS								KON KAVE BOW CENTRALIZERS					
On OD	Thru OD	IN ID		# Bows		# Bows		# Bows		# Bows		# Bows		# Bows		# Bows
2⅜"	5"	4¼"	x	4•										4•		
	5½"	4¾"	x										x			
	6"	5⅛"	x										x			
	6⅝"	6"	x													
2⅞"	6"	5⅛"	x	4•									x	4•		
	7"	6⅛"	x										x			
	7⅝"	6⅝"	x										x			
3½"	5¾"	4¾"	x	4•										4•		
	6⅝"	* 6"	x										x			
	7⅝"	6¾"	x										x			
	8⅝"	7⅞"	x										x			
4"	7"	6¼"	x	4•												
	7⅝"	6¾"	x													
	8⅝"	7⅞"	x													
	9⅝"	8¾"														
4½"	6⅝"	6¼"		4▲	R	4•	x	4•	x	4•						4•
	7"	6¼"			R		x		x							
	7"	6¾"			R		x		x							
	7⅝"	6¾"			R		x		x							
	8⅝"	7⅞"	R		R											
	9⅝"	8⅝"	R													
	10¾"	9⅞"													x	
	11¾"	10⅝"													x	
5"	7"	6¼"		4•					x	4•						4•
	7⅝"	6¾"							x							
	8⅝"	7⅞"	x													
	9⅝"	8⅝"	x													
	9⅝"	8⅞"	x												x	
	10¾"	9⅝"													x	
	11¾"	10⅝"													x	
5½"	7⅝"	6¾"		4▲	R	4•	x	6▲	x	5•				6▲		6▲
	8⅝"	7⅞"	R		R		x		x				x			
	9⅝"	8¾"	R		R								x		x	
	10¾"	9⅞"	R										x		x	
	11¾"	11"											x		x	
	13⅜"	12¼"													x	
6⅝"	8⅝"	7⅞"							x	6•					x	6▲
	9⅝"	8¾"							x				x	6▲	x	
	10¾"	9⅞"											x		x	
	11¾"	10⅝"											x		x	
	13⅜"	12¼"											x		x	
	16"	15"													x	
7"	9"	8⅝"		6▲	R	6▲	x	6▲	x	6•			x		x	
	9⅝"	8⅝"	R		R		x		x				x		x	
	9⅝"	8¾"	R		R		x		x				x		x	
	10¾"	9⅞"	R		R		x				x	6▲	x	6▲	x	6▲
	11¾"	10⅝"	R								x		x		x	
	13⅜"	12¼"									x		x			
7⅝"	9⅝"	8⅝"		6▲	R	6▲	x	6▲	x	6•						
	10¾"	9⅞"	x		R		x		x							
	11¾"	11"	R		x											
	12¼"	11¾"	x													
	13⅜"	12¼"														
	16"	15"														
8⅝"	10¾"	9⅞"		6■	R	6▲	x	8▲							x	8▲
	11¾"	10⅝"	R		R		x								x	
	13⅜"	12¼"	R												x	
	16"	15"													x	
9⅝"	11¾"	11"		8▲	R	6■	x	8▲								
		11¾"	R		R		x				x		x			
	13⅜"	12¼"	R		R						x	8▲	x	8▲		
	16"	14"									x		x			
	16"	15"									x		x			
10¾"	16"	14"	R	8■	x	6▲	x	8▲			x		x		x	
	16"	14¾"	R								x		x		x	
	16"	15"	x								x	8▲	x	8▲	x	8▲
	18⅝"	17½"													x	
11¾"	16"	14¾"	R	8■												
	16"	15"	R													
	18⅝"	17½"														
13⅜"	16	14¾"	R	10■	x	8▲					x		x		x	
	18⅝"	17½"	R								x	10▲	x	10▲	x	10▲
	20"	18⅝"									x		x		x	
16"	20"	18⅝"	x	10■	x	10▲							R	10▲		
20"	24½"	24"	x	10■	x	10▲							R	10▲	x	12▲

*O D given in Minimum Centralizer O D without allowance for stop device or casing collar

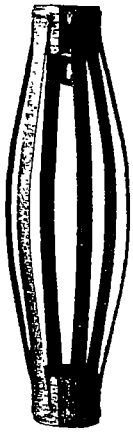
WELL COMPLETION EQUIPMENT

TRICO INDUSTRIES, INC.

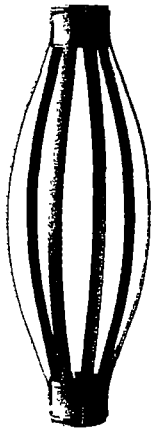


STANDARD CENTRALIZER
Product No AG02
Latch-On-Type

HIGH STRENGTH CENTRALIZER
FOR OFFSHORE APPLICATIONS
Product No AC02
Latch-On-Type

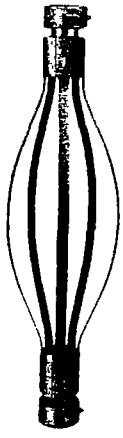


GP LARGE HOLE
CENTRALIZER
Product No AD02
Latch-On-Type

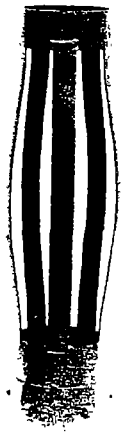


GP OVERSIZE HOLE
CENTRALIZER
Product No AE02
Latch-On-Type

GP OVERSIZE HOLE
LINER CENTRALIZER
Product No AE07
Slip-On-Insert-Type



GP TELESCOPING
RESTRICTED CLEARANCE
LINER CENTRALIZER
(w/Automatic Stop Collar)
Product No AE09
Slip-On-Type



LINER OR SLIM HOLE
CENTRALIZER
(w/Automatic Stop Collar)
Product No AF22
Slip-On-Type

Centralizers

B&W Standard Centralizers

Item	Type	O.D. = Casing O.D. + Maximum	Minimum	Length
AG02	Latch-On	3 3/4"	1"	23

B&W High Strength Centralizer for Offshore Applications

Item	Type	O.D. = Casing O.D. + Maximum	Minimum	Length
AC02	Latch-On	6 1/2"	1"	32"

B & W GP Centralizers

All GP centralizers are extremely effective in directional hole operations, oversize hole conditions and gravel packing The long bow design permits travel through restricted casing, yet exerts a strong centering force in enlarged holes

AD02 GP Large Hole Centralizers are suitable for normal to large hole conditions

AE02 GP Oversize Hole Centralizers are suitable for normal to oversize hole conditions

AE07 GP Oversize Hole Liner Centralizers permit running through close-tolerance casing into a large hole below

AE09 GP Telescoping Restricted-Clearance Liner Centralizers have integral automatic stop collars They are used where welding is undesirable The bows are always pulled through the hold to facilitate passage

Item	Type	O.D. = Casing O.D. + Maximum	Minimum	Length
GP Large Hole AD02	Latch-On	6-5/8"	1"	37"
Oversize Hole AE02	Latch-On	10-1/4"	1"	42-1/2"
Oversize Hole Liner AE07	Slip-On (Window)	10-1/8"	1/2"	50"
Telescoping GP Restricted Liner AE09	Slip-On*	10-1/8"	5/8"	58-1/2"

* Has integral automatic stop collar for application where welding is undesirable

B&W Liner or Slim Hole Centralizers

Item	Type	O.D. = Casing O.D. + Maximum	Minimum	Length
AF22	Slip On (Insert)*	2-3/8"	3/4"	27"
AB02	Latch On	2-5/8"	1"	25

* With turned automatic stop collar

NEW FROM TRICO

The PHT-300 PORTABLE HYDRAULIC PRODUCTION TEST UNIT.

The new PHT-300 Portable Hydraulic Production Test Unit from Trico Industries is a completely self-contained test package mounted on a 40 ft. low-boy trailer for ease of transportation to and hook-up at the wellsite.

The PHT-300—

- Is an economical way to determine production levels for a specific well.
- Sets-up and tears-down easily.
- Requires minimal operator attention.
- Is available for well testing by the day, week or month.

After the well test/evaluation has been performed, Trico can provide a hydraulic, electric submersible or rod pumping system that will best produce the well. A credit from the test expense will be given on any Trico system if purchased or installed under a long term rental option.

To put the Trico PHT-300 Portable Hydraulic Test Unit to work for you, or for more information, contact one of these Trico offices—

Oklahoma City	(405) 672-0228	Fred Anderson
Wichita Falls	(817) 767-8081	Duane Morrison
Midland	(915) 697-8161	Holice Smith

TRICO INDUSTRIES, INC.
P O BOX 108
GARDENA, CALIFORNIA 90248

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TRICO INDUSTRIES, INC. **WELL COMPLETION EQUIPMENT**

Centralizers

B & W Turbulence-Generating Centralizers

B&W Turbulence-Generating Centralizers center the casing and create maximum turbulence in the fluid rising through the annulus

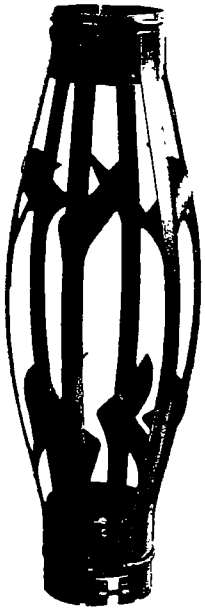
Tubulence-generating vanes inside the centralizer deflect the flow of fluid and generate turbulence up the hole without an increase in pump pressure This turbulence cleans up the annulus, distributes the cement evenly, and prevents channeling and plug flow to achieve a solid fill Whenever turbulence-generating centralizers are collapsed to their minimum O D , they always return to their original shape without distortion to either bows or vanes Each vane is rib-reinforced for maximum strength and is fully protected by the bows to prevent being stripped off while running in the hole

Turbine blade centralizers have a spring-steel turbine blade attached to each bow immediately above the lower collar The blades are oriented for left- or right-hand deflection and the centralizers should be mounted so as to alternate this direction Double turbine blade centralizers have a blade attached to each end of each bow with those at the bottom oriented in the opposite direction from those at the top

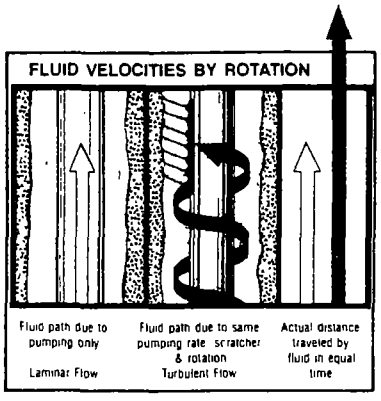
Two Turbine Blade Centralizers installed on the shoe joint and a minimum of one per joint throughout the cement fill on range two casing are recommended Closer spacing should be observed in the critical areas

Item	Type	O D = Casing O D +		Length
		Maximum	Minimum	
Double Turbine Blade AD62	Latch-On*	6-5/8"	1"	37"

* With hinged friction lock clamp



DOUBLE TURBINE BLADE CENTRALIZER (w/Hinged Friction Lock Clamp) Product No AD62 Latch-On Type



ANTI-CHANNELING The turbulence-generating fins are shaped to give the slurry a vigorous spin as it flows by The turbulence breaks up channeling, spins the jelled mud back into circulation and keeps the annulus cleaner for improved bonding of the cement

Installation of B & W Turbulence-Generating Centralizers

Note Do not install around a casing collar or single stop device

Item	Installation Procedure
AD62	Latch unit around casing Insert hinge pins Hammer down steel tabs on hinge to secure pins and tighten socket head bolt on FLC with long-handled hex wrench

Positive Stabilizers

B & W Stabilizers are positive centralizers, meaning that they have rigid bow construction The non-give quality of B & W stabilizers make them particularly effective in highly deviated holes, where it is important to prevent casing sag Stabilizers provide a uniform annulus and reduce the possibility of channeling of the cement slurry Stabilizers are usually ⅛ in. less than drift in all standard sizes, but may be furnished to other specifications

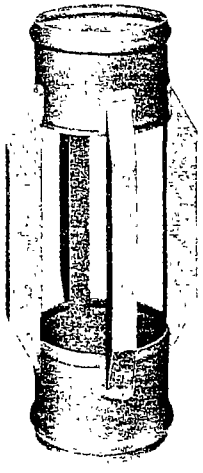
Item	Type	O D = Casing O D +	Length
CA01	Slip-On	These units are made for various combinations of casing O D s and hole sizes	18-1/2"
CA02	Latch-On		18-1/2"

T-Bar Stabilizer

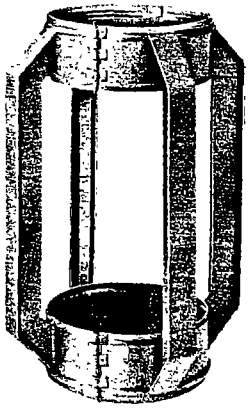
Produces 100% stand-off even in deviated holes Friction drag is significantly reduced and concentricity of casing strings is assured The B & W T-Bar Positive Stabilizer also protects the primary cementation of previously run strings from the shocks of drilling and tripping Stabilizers are ususally 1/8" less than drift in all standard sizes, but may be furnished to other specifications

CB02 B & W LATCH-ON T-BAR STABILIZERS
—Length 18-1/2"

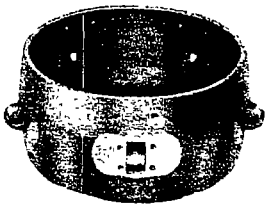
*These units are made for various combinations of casing OD and hole sizes Prices and delivery upon request



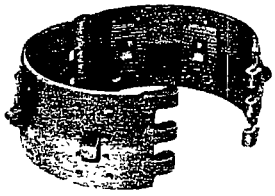
POSITIVE STABILIZER Product No CA01 Slip-On Type



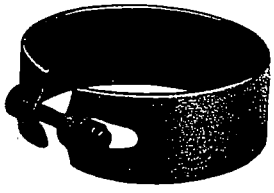
T BAR STABILIZER Product No CB02



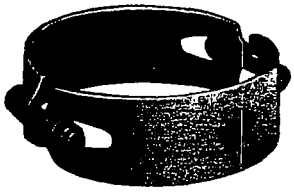
LATHE TURNED AUTOMATIC
STOP COLLAR
Product No DA20
Slip-On-Type
(Close Tolerance)



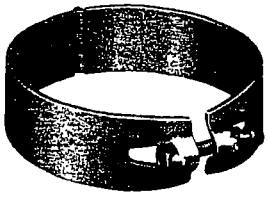
AUTOMATIC STOP COLLAR
Product No DA50
Latch-On-Type



FRICTION LOCK CLAMP
Product No DB10
Slip-On-Type



ROTATOR CLAMP
Product No DB20
Latch-On Type
(For use with
Rotating
Scratchers)



HINGED FRICTION LOCK CLAMP
Product No DB30

B & W Stop Device Equipment

Stop collars are devices which mount and secure primary cementing equipment such as centralizers and scratchers permanently to the casing. Once a stop collar is attached to the casing, it supports the primary cementing equipment which is lowered into the hole with the casing. B & W has developed a series of stop devices for mounting primary cementing tools safely and securely. Each B & W stop device fulfills three basic requirements:

1 No damage to the casing
2 Positive holding on wet or dry casing.
3 Fast and simple installation

B & W Automatic Stop Collars

The slips on B&W Automatic Stop Collars are carburized and heat treated, resulting in a hard, tough surface. This hardness allows the slip to bite deeply into the casing when it is hammered down flush with the collar during installation Controlled depth punches, or "dimples", provide additional wedging action between the slip and the collar. These dimples cause the slip to force itself further into the casing, maximizing the bite depth.

DA20 Lathe-Turned Collars are particularly suitable for close-tolerance holes DA50 Latch-On Collars are for use on upset or non-upset casing.

Item	Type	O D = Casing O D +
DA20	Lathe-Turned, Slip-On	5/8"
DA50	Latch-On	1"

B&W Friction Lock Clamps

B & W Friction Lock Clamps provide a low-cost, secure, and easy installation of centralizers and scratchers.

Item	Type	O D = Casing O.D +
DB10	Slip-On	7/8"
DB20	Rotator	1 5/8"
DB30	Latch-On	7/8"

Installation of B & W Stop Devices

Item	Installation Procedure
DA20	Slip on casing to desired position Drive slip loops in collar flush against casing with hammer and slip-driving tool, bolt head or chisel
DB10 DB30	Slip on casing and tighten socket head bolt with long-handled hex wrench
DA50	Latch around casing Drive latch pin home with hammer Drive slip loops in collar flush against casing as described in DA10
DB20	Latch on casing Make sure interlocking button in collar engages hole in end scratcher Tighten socket head bolts alternately with hex wrench

TRICO INDUSTRIES, INC.

WELL COMPLETION EQUIPMENT

B & W Scratcher and Turbulator Equipment

Reciprocating Type

Successful primary cementing requires centering of the casing, casing movement, and a properly conditioned hole. B & W Scratchers condition the hole by removing mud cake from the face of the formation to ensure a good cement bond and to prevent channeling They also contribute to the even distribution of the cement slurry and the achievement of a complete fill B & W Turbulators generate turbulence and remove excessive hole growth without completely removing the filter cake

B & W Reciprocating Scratchers & Turbulators

Item	Type	Max O D. = Casing O D +
Multi-Flex EA10 EA20 EL79	 Slip-On Latch-On Latch-On with Friction Lock Clamp	 7"
Multi-Flex Clusters EL79-04	Latch-On with Friction Lock Clamp (Series of 4)	7"
Turbulator EL54 EL58	 Slip-On Latch-On	 5-1/2"

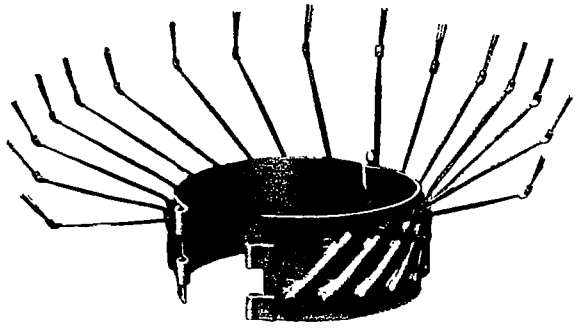
B & W Reciprocating Scratchers and Turbulators are constructed to withstand any treatment from the casing rack to the bottom of the well without impairing their effectiveness The high-strength wire fingers and cable loops disintegrate the toughest filter cake and their working diameter enables them to reach into enlarged sections to agitate gelled mud and make possible a complete cement fill

EA10 Multi-Flex Scratchers have high-alloy multi-wire fingers that reverse to scratch only on the upstroke They have the highest fatigue life of any scratchers available and are manufactured in all common tubing and casing sizes

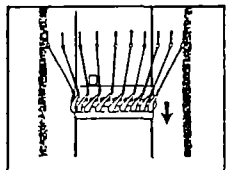
EL79-04 Multi-Flex Clusters are recommended for use where casing movement is impracticable, or in single-point entry applications. The clusters provide multiple scratching on the one stroke and help to distribute the cement evenly and prevent channeling Spacing between the clusters should not exceed 3 ft. throughout the critical area, including the joint immediately above and below

EL54 Turbulators have multiple high-alloy steel cable loops to generate turbulence, break up channel flow, remove excess hole growth, and permit normal velocities at low pump pressures An ideal tool for cementing surface casings and when cementing through soft formations

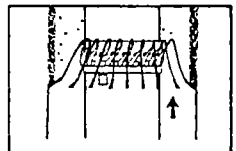
For optimum results, it is recommended that B & W scratchers and turbulators be placed at least every 10 ft throughout the desired height of the cement fill Casing movement should be continued throughout the entire cementing operation, with sufficient stroke to provide overlap of the scratcher or turbulator action on the formation



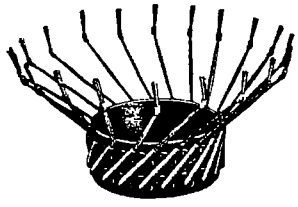
MULTI-FLEX SCRATCHER
Product No EA20
Latch-On-Type



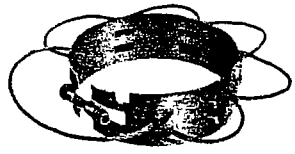
RUNNING IN Upswept multiple wire spring units protect the mud cake as casing is lowered in well



SCRATCHING Strong spring units reverse and scratch the mud cake from the critical section as casing is raised



MULTI-FLEX SCRATCHER
Product No EA10
Slip-On-Type



TURBOCLAMP
COMBINATION 54
Product No EL54
(Slip-On-Type Turbulator w/integral Friction Lock Clamp)

B & W Scratcher and Turbulator Equipment

Rotating Type

B & W Rotating Scratchers

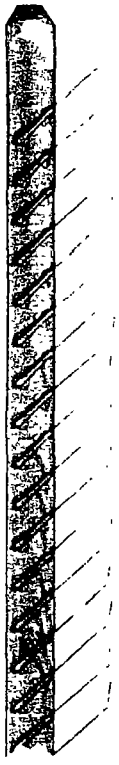
B & W Rotating Scratchers create turbulence, remove filter cake, eliminate excess hole growth, and act as slurry spreaders when the casing on which they are mounted is rotated during the cementing operation

Item	Type	O.D = Casing O D + (or Tubing O D.) +		Length
		Maximum	Minimum	
ER03	Multi-Flex for casing	7"	7/16"	5'
ER21	Turbulator for casing	6"	3/8"	5'

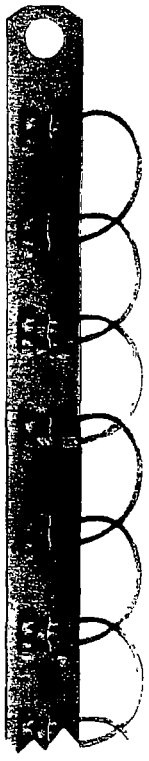
All B & W Rotating Scratchers are mounted on a concave base that is bowed throughout its length towards the pipe on which it is to be mounted The combination of concavity and bow (exclusive with B & W scratchers) provides the firmest possible base for this type of tool

ER03 Multi-Flex Rotating Scratchers embody the same high-quality, multiple-strand spring-steel wire fingers as do the reciprocating type They have the highest fatigue life of any scratcher fingers available.

ER20 and ER21 Turbulators embody rugged construction to enable them to withstand the hardest kind of oil field usage, from the rack to the *bottom of the hole They provide excellent turbulence and remove* excessive hole growth without damaging the formation



MULTI-FLEX ROTATING SCRATCHER
Product No ER03



ROTATING TURBULATOR
Product No ER21

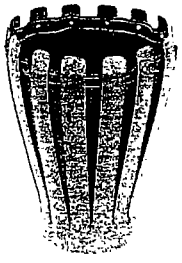
Installation of B & W Rotating Scratchers

Slip or latch on DB20 rotator clamp Engage interlocking buttons with holes in ends of scratcher Secure clamps as described for stop devices The scratchers should be installed continuously throughout the entire height of the calculated cement fill Normal rotary speed for proper fill and cementation is 40 to 50 rpm

B & W Kon-Kave Kanvas Cement Basket

Series	Type	O D = Casing O D +		Length
		Maximum	Minimum	
GA10	Slip-On	5"	3/4"	14-1/2"

Designed strictly for use where cementation is accomplished without reciprocation, the Kon-Kave Kanvas Cement Basket is one of the most economical on the market. One-piece canvas insert of heavy army duck lines the inside of the sturdy Kon-Kave bow basket to provide positive, leak-proof support of the column of cement.



KON-KAVE KANVAS CEMENT BASKET
Product No GA10
Slip-On-Type

TRICO INDUSTRIES, INC. **WELL COMPLETION EQUIPMENT**

B & W Cement Basket Equipment

B & W Leaf-Loc® Cement Baskets

B & W Leaf-Loc Cement Baskets serve as effective formation packers around the casing to support a column of cement in the annulus above any selected point and to protect lower sections of the formation from excessive hydrostatic head of the cement column They are essential pieces of equipment for multi-stage cementing and are placed immediately below the stage or port collar

Item	Type	O D = Casing O D. +		Length
		Maximum	Minimum	
Close-Tolerance Leaf-Loc GD20	Slip-On with Automatic Stop Collar	4-1/2"	1-1/2"	35"
Standard Leaf-Loc GB20	Slip-On with Automatic Stop Collar	9-1/2"	2-1/2"	35"

The Leaf-Loc design interlocks the over-lapping steel and opposes any force that may cause separation and loss of the packer effect This exclusive feature also holds the pre-stressed basket leaves in radial compression to assure a 360° contact with the wall, regardless of hole irregularities, or the number of previous compressions of the basket The high-tensile strength basket leaves give effective check-valve action in supporting the column of slurry

B & W Very Restricted Clearance (VRC) Cement Baskets

The all-metal construction of the VRC baskets is of drop-forged chrome-alloy spring steel multiple Kon-Kave bows, the lower halves of which are integral with wide overlapping leaves that form a secure support for cement or gravel These leaves slide against each other throughout the full range of expansion and contraction, functioning in a manner similar to the iris of a camera lens. The baskets can be run in normal position, with the leaves on the lower half, or in an inverted position, in which case any port collar run immediately below must be left open while running in Mounting options permit both rotation and reciprocation of the pipe

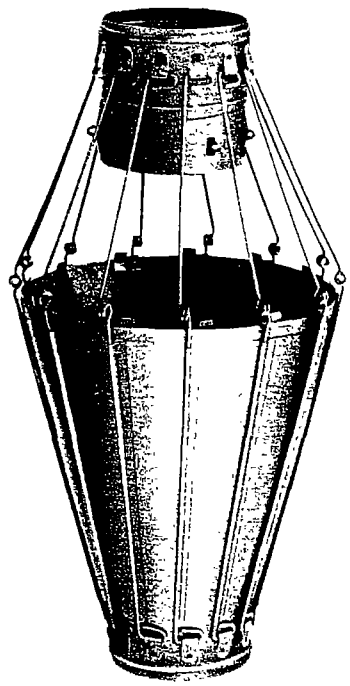
Item	Type	O D. = Casing O D. +		Length
		Maximum	Minimum	
VRC Oversize-Hole GK20	Telescoping	10-1/8"	1"	61" extended
GK40	Split	10-1/8"	1"	46"

The VRC Oversize-Hole Series can be run under extremely close-tolerance situations, yet they provide positive formation packoff in open hole sizes up to 10-1/8 in larger than the OD of the casing on which they are run The high-tensile-strength multiple Kon-Kave bows are integral with wide, overlapping leaves to form a secure support for the cement column.

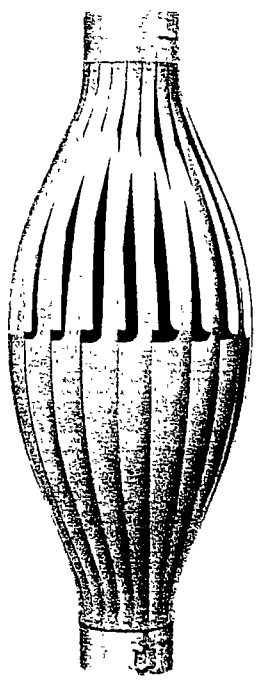
Installation of B & W Cement Baskets

Item	Installation Procedure
GA10	Slip basket on casing to desired location Install automatic stop collars above and below the basket at a minimum distance of 18 inches apart
GB20	Slip basket on casing with stop collar inside Drive slip collar flush with casing with hammer and slip-driving tool, bolt head, or chisel
GK20	Slip on casing to desired location Set automatic stop collars by driving slip loops flush against casing with hammer and slip-driving tool, bolt head, or chisel
GJ40 GK40	Place around casing collar or Turned-Down Automatic Stop Collar (Product No DA20) and latch together Lock by driving tabs flat against locking tongue with hammer

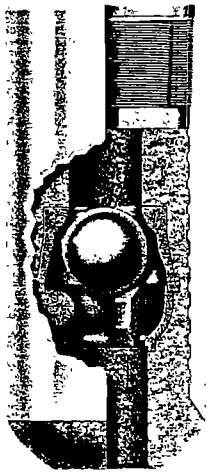
CLOSE TOLERANCE LEAF-LOC CEMENT BASKET (Slip-On Type w/Automatic Stop Collar) Product No GD20



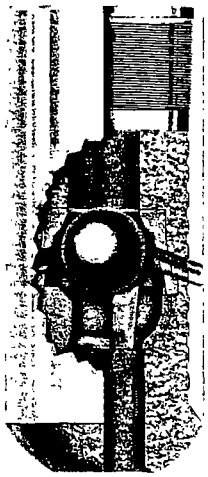
STANDARD LEAF LOC CEMENT BASKET (Slip-On-Type w/Automatic Stop Collar) Product No GB20



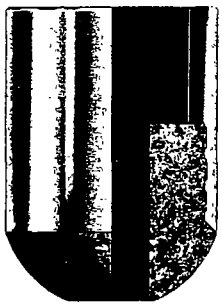
VRC OVERSIZE-HOLE CEMENT BASKET Product No GK40 Split-Type KK7 Bows



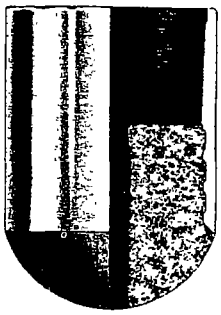
CEMENT FLOAT SHOE
Product No FA01
Ball-Valve-Type



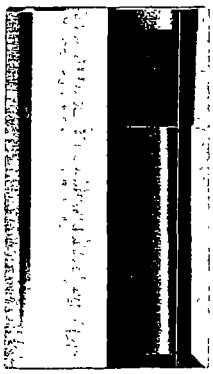
CEMENT FLOAT SHOE
Product No FA03
Ball-Valve-Type
Down Jet



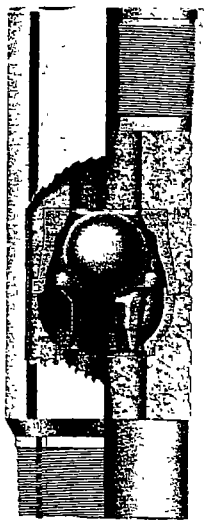
CEMENT GUIDE SHOE
Product No FC01



CEMENT BULL PLUG
GUIDE SHOE
Product No FD01



TEXAS PATTERN CASING SHOE
Product No FC07



CEMENT FLOAT COLLAR
Product No FN01
Ball-Valve-Type

Float and Guide Equipment

B & W float and guide shoes provide effective guidance of the running-in string to ensure proper landing, even when the hole is extensively irregular and deviated B & W float and baffle collars effectively complement the action of B & W shoes by ensuring the running-in string against contamination when the cement plug is sealed

B & W float shoes and collars can be supplied with ball-valve or flapper-valve (Hyflow) back-pressure control for standard floating action They can also be supplied as automatic fill convertible shoes and collars in a choice of Orifice Fill or hydro-differential design for controlled fill while running in B & W insert valves offer a choice of any of the above valve types with the single exception of hydro-differential The shoes and collars can also be supplied in stab-in design

The positive-seal, erosion resistant balls are all of long-wearing, high-impact resin impregnated with a uniform coating of highly abrasion resistant nitrile over their entire surface for maximum sealing ability

B & W Shoes (Ball-Valve & Guide), and Collars (Ball-Valve & Baffle)

Cement Type

This cement-type shoe is supplied as a float shoe (ball-valve type), guide shoe, or bull plug guide shoe, the collar as a float collar (ball-valve type), baffle collar with hole, or solid baffle collar All shoes are optionally available with or without down-jet ports

Collar and shoe fittings are of one-piece, high-strength seamless-steel coupling stock in standard API O D 's The valve is cemented into the shell using high strength concrete Units are normally supplied with 8 Rd or buttress threads Other threads can be furnished to specifications on request

Cement Float Shoe, Ball-Valve Type, Product No. FA01, and Cement Float Shoe, Ball-Valve Type, Down-Jet, Product No. FA03—Design permits high-volume circulation to wash away bridges and clean the wall of the hole prior to cementing Back pressure is controlled positively by the seating of the nitrile coated ball against an erosion resistant phenolic seat

Cement Float Collar, Ball-Valve Type, Product No. FN01—Large circulation area allows full volume flow to the shoe below, ensuring effective washing away of bridges and cleaning of the hole Float collar provides positive back-pressure control as well as rugged stop and seat for the cementing plug

Cement Guide Shoe, Product No. FC01—Large internal passageway provides maximum volume flow through guide port during cementation.

Texas Pattern Casing Shoe, Product No. FC07—This shoe can be used in running open-ended pipe It features a full valve opening offering minimum resistance to pump pressure The resulting higher pump volumes provide easier washdown

Cement Bull Plug Guide Shoe, Product No. FD01—High-strength concrete baffle or bull plug gives dependable isolation of the selected part of the running-in string

Hyflow Shoes and Collars

B & W Flapper-Valve-Type Hyflow Float Shoes, Float Collars are designed to wash away bridges to condition the hole prior to cementing They provide a flapper-type check valve that allows straight-through circulation without the impingement characteristics of ball- or disc-type construction Drill-out characteristics are similar to those of a cement plug

Stab-In Equipment for Primary Cementing

All Trico Ball & Flapper-Type Float Equipment, including Hydro-Differential (not shown), is also manufactured and available for stab-in cementing applications

TRICO INDUSTRIES, INC. **WELL COMPLETION EQUIPMENT**

Float Equipment

Hyflow Shoes and Collars Continued

Hyflow Float Shoe, Product No. FB01—These shoes act as perfect guides, even in deviated holes, to ensure proper landing of the casing string They allow straight-through circulation to accomplish hole conditioning The nitrile-coated, flapper-type back-pressure valve is spring loaded and comes into instant operation when circulation is discontinued

Hyflow Float Collar, Product No. FP01—The B & W Hyflow Float Collar may be used in conjunction with a standard guide shoe or with a Hyflow float shoe to provide a secondary back-pressure valve It permits circulation at any time and allows passage of a ball of given size to actuate downhole equipment

The design of the Hyflow Flapper Valve Shoe and Collar will allow for a simple field modification to convert them to orifice-fill equipment, circulating or non-circulating (see below)

B & W Orifice Shoes and Collars

Designed to provide a means of controlling the fill of the casing while running in and of subsequently converting to float equipment. Shoes and collars are constructed of strong coupling material with high-strength concrete Valve assemblies are of easily drillable heat-treated aluminum with nitrile-coated parts and seals

If required, orifice shoes and collars can be delivered with the ball held in place by an optionally removable spring If run in this "non-circulating" mode, any high-volume circulation will immediately convert the unit to float equipment However, if circulation is required prior to conversion, the spring and ball must be removed and retained at the surface Conversion is then accomplished by merely dropping the ball downhole ahead of the cement

Orifice Shoe, Product No. FZ25—Shoe can be run as circulating or non-circulating equipment Before conversion to float equipment, the orifice controls the fill of the casing to a safe level Unit can be run alone or in combination with any up-hole equipment that will not interfere with the controlled fill action or with the dropping of the ball where required

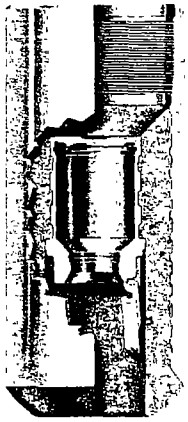
Orifice Collar, Product No. FZ55—This collar should be run in combination with a guide shoe as the orifice sleeve must be free to pass through the shoe when converted to float equipment The orifice collar works as the orifice shoe, providing fill protection as well as back-pressure holding capability after conversion to float

Posi-Full Collar, Product No. FZ67—This collar is designed to run in conjunction with, and effectively complements, the orifice shoe. In combination with the shoe, it provides double fill protection as well as double back-pressure holding after conversion to float The Posi-Fill sleeve is retained in the collar after converting to float equipment so there is no possibility of the sleeve interfering with the orifice valve in the shoe. The same ball is used to close the flapper at the collar and shoe

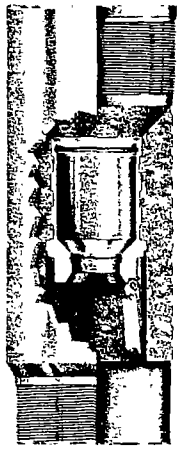
Insert Valves

Hyflow Insert Valve, Product No. FY12—This flapper-valve-type insert valve is designed to provide an economical float or check valve that can be threaded and installed in the "JJ" of any standard API 8 Rd or buttress coupling in a matter of minutes In operation, it provides the same features as those described above for the Hyflow float collar A Spacer Ring, Product No DE02, must be run below the insert valve in certain lighter weights of casing **Always specify the size and weight of the casing to determine whether or not a ring is required.**

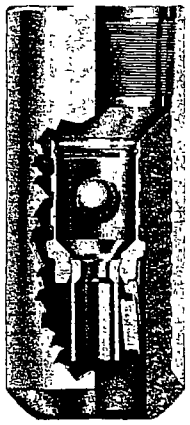
Orifice Fill-Up Insert Valve, Product No. FY15—Installation is the same as for Hyflow insert valve A fixed orifice tube holds the flapper valve open to provide automatic fill while running in Unit converts to flapper-type floating equipment when Kirksite ball is dropped and pumped through.



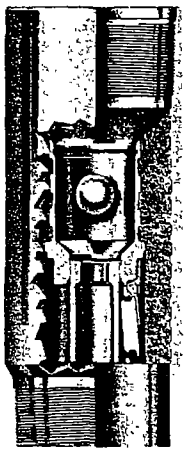
HYFLOW FLOAT SHOE
Product No FB01



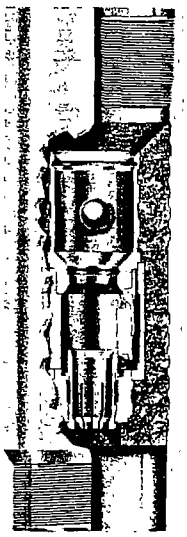
HYFLOW FLOAT COLLAR
Product No FP01



ORIFICE SHOE
Product No FZ25

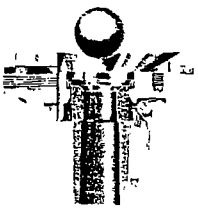


ORIFICE COLLAR
Product No FZ55



POSI-FILL FLOAT COLLAR
Product No FZ67

HYFLOW INSERT VALVE
Product No FY12



ORIFICE FILL-UP VALVE
Product No FY15

CHEMICAL INJECTOR PUMP

TRICO INDUSTRIES, INC.

Tri-Chem Chemical Injector Pumps

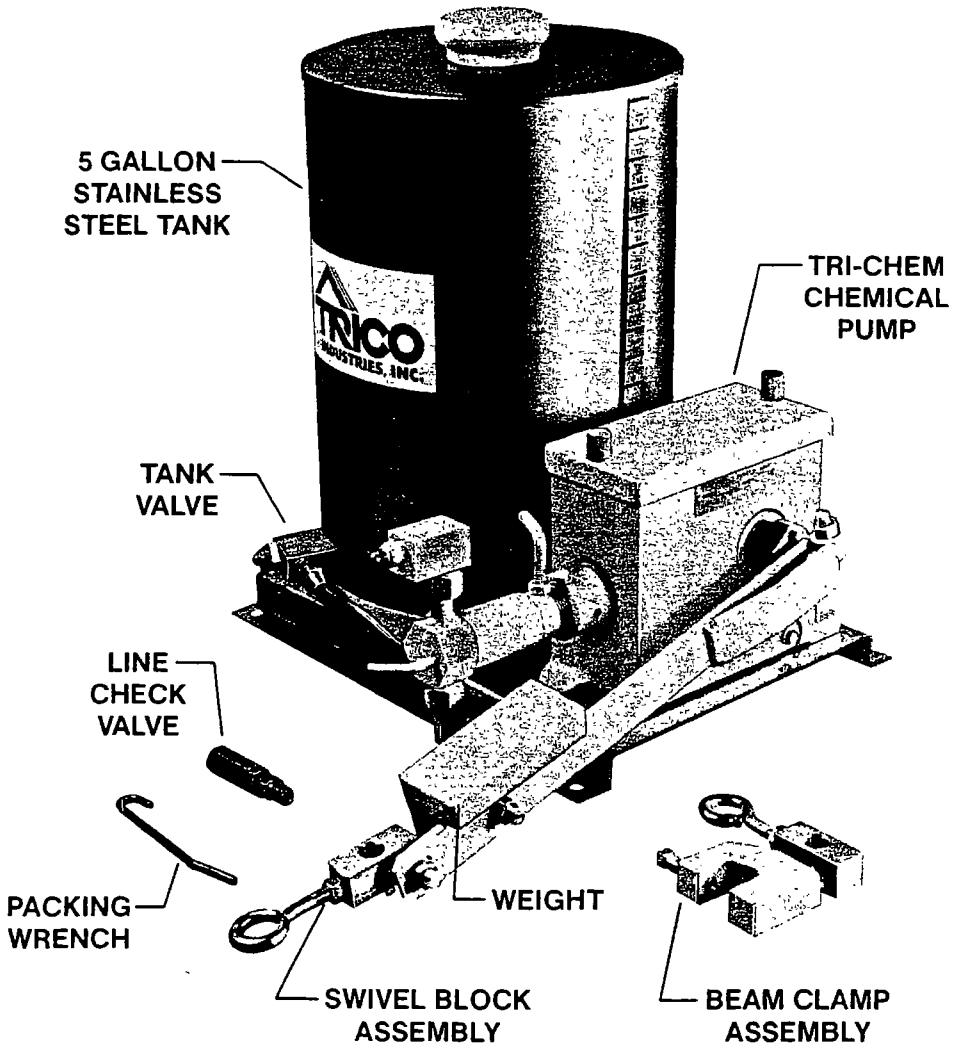
Models TCL-1 and TCL-2

Tri-Chem™ Chemical Pumps are rugged, reliable and low-cost chemical injector pumps and are ideal for injecting corrosion inhibitors, antifreeze and other chemicals. Small and compact, Tri-Chem units can be installed quickly and easily in a variety of locations.

Models TCL-1 and TCL-2 are lever actuated designs to be used with conventional walking beam pumping units By connecting the Tri-Chem pump to the walking beam by means of a cable, a measured amount of chemical is injected into the well with each pumping unit upstroke. Thus, no additional energy is required to operate a TCL pump.

A TCL-1 Tri-Chem unit is furnished with a 3/8" (standard) or a 1/4" piston in the fluid end, beam clamp and swivel block assemblies, weight assembly, line check valve and packing wrench The TCL-2 includes all items of a TCL-1 plus base, 5 gallon stainless steel chemical tank, tank valve assembly and tube & nut assembly.

Assembly No.	Type
802-299-501 802-399-501	TCL-1, 1/4" Piston TCL-1, 3/8" Piston
802-299-502 802-399-502	TCL-2, 1/4" Piston TCL-2, 3/8' Piston



TRICO INDUSTRIES, INC. PUMPING UNITS

Trico Pumping Units

Trico Crank Balanced Pumping Units are designed and manufactured in accordance with API standards 11-E and the API monogram is carried on both the structural assembly and gear box

Each Trico pumping unit is a precision piece of machinery manufactured to the highest standards of the industry — so much so that each unit carries a full one year warranty on parts and labor backed by Trico Industries, Inc Provided proper installation and normal use and maintenance procedures are followed, Trico pumping units should provide many years of dependable, trouble-free service

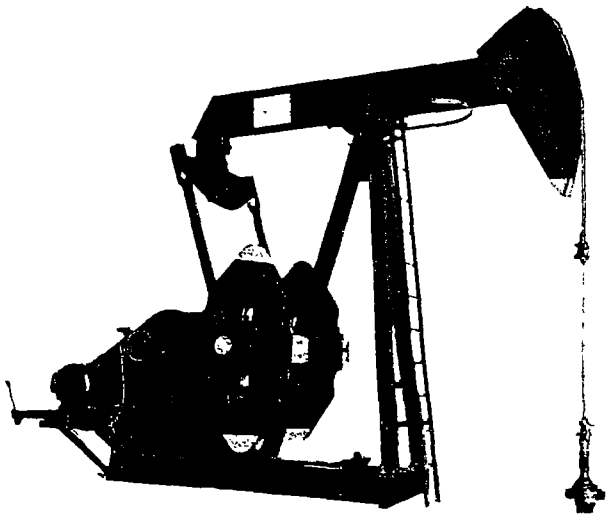
Trico pumping units are furnished with API-rated double-reduction gear reducers, with gear ratios of approximately 30 1 The structural assemblies can be furnished with T-type bases for use on cement foundations or with heavy-duty portable-type bases for use on gravel foundations with cross timbers as supports Elevated electric-motor prime-mover bases can be furnished as well as prime-mover bases to fit multi-cylinder gas or slow speed engines Belt guards are available for all types of prime movers Crank guards and foundation hold-downs are also available

Trico Crank Balanced Pumping Units are available in the following sizes

C-114D-143-64	C-228D-213-86
C-114D-119-86	C-228D-246-86
	C-228D-213-120
C-160D-143-64	
C-160D-173-74	C-320D-305-100
C-160D-119-86	C-320D-256-120
C-160D-200-74	
C-160D-213-86	
C-160D-173-100	

Trico also offers "California" models in some of the above sizes for shallow well, high production applications

Trico has capable sales and service personnel throughout the U S oil producing areas Trico personnel are not only well versed in the proper sizing of pumping units, but are trained to provide any service, from routine maintenance to complete design and construction of turn-key production facilities



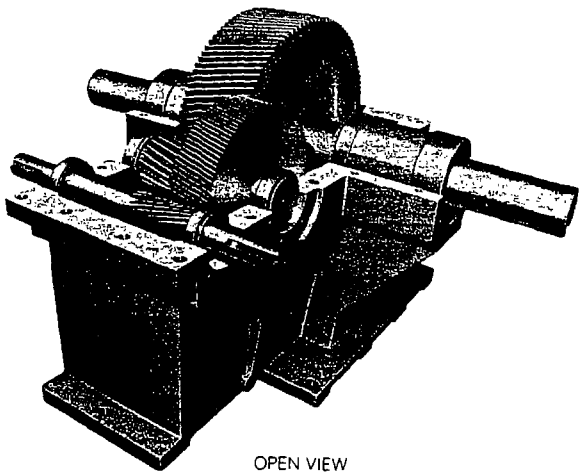
CRANK BALANCED PUMPING UNIT

Pumping Unit Gearbox

Trico Crank-Balanced Pumping Units feature a heavy-duty helical, double-reduction gearbox These gearboxes are built in accordance with API standards and designed especially for rugged oilfield use

The housings are of a cast iron, stress-relieved, two-piece design, featuring full depth external ribs and large continuous bearing bosses to ensure maximum support for the gear elements and rotating counterweights. Single helical gearing is employed throughout to achieve maximum space utilization and minimum weight, as well as smoothness of operation. Tapered roller bearings, with an average life of 100,000 hr. at rated load, are fitted to all shafts to absorb gearing and external loads.

An oil splash and wiper lubrication system ensures positive lubrication of all gears and bearings. The gearbox can also be rotated in either direction without affecting the lubrication system. Nitrile, double lip-type oil seals on all shafts extensions provide maximum oil retention and protection against abrasive dust and moisture.



OPEN VIEW

GEARBOX

PUMPING UNITS

TRICO INDUSTRIES, INC.

Pumping Unit Specifications

STRUCTURAL SPECIFICATIONS

ITEM	C-114D-143-64	C-114D-119-86	C-160D-143-64	C-160D-173-74
Peak Polished Rod Capacity (lb)	14,300	11,900	14,300	17,300
Stroke Lengths (in)	64, 52, 40	86, 72, 59	64, 52, 40	74, 62, 51
Walking Beam (in × lb)	18 × 71	24 × 84	18 × 71	24 × 84
Wireline Hanger (in)	1-1/8 × 202	1-1/8 × 255	1-1/8 × 202	1-1/8 × 262
Crank Pin Bearing	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings
Equalizer Bearing	Roller Bearings	Roller Bearings	Roller Bearings	Roller Bearings
Center Bearing	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings

ITEM	C-160D-200-74	C-160D-213-86	C-160D-173-100	C-228D-213-86
Peak Polished Rod Capacity (lb)	20,000	21,300	17,300	21,300
Stroke Lengths (in)	74, 64, 54	86, 74, 62	100, 86, 73	86, 74, 62
Walking Beam (in × lb)	24 × 94	24 × 104	24 × 104	24 × 104
Wireline Hanger (in)	1-1/8 × 262	1-1/8 × 268	1-1/8 × 268	1-1/8 × 268
Crank Pin Bearing	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings
Equalizer Bearing	Roller Bearings	Roller Bearings	Roller Bearings	Roller Bearings
Center Bearing	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings

ITEM	C-228D-246-86	C-228D-213-120	C-320D-305-100	C-320D-256-120
Peak Polished Rod Capacity (lb)	24,600	21,300	30,500	25,600
Stroke Lengths (in)	86, 74, 61	120, 102, 85	100, 85, 70	120, 102, 85
Walking Beam (in × lb.)	24 × 117	24 × 131	27 × 146	27 × 146
Wireline Hanger (in)	1-1/8 × 345	1-1/8 × 332	1-1/4 × 332	1-1/8 × 332
Crank Pin Bearing	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings	Self-Aligning Roller Bearings
Equalizer Bearing	Roller Bearings	Roller Bearings	Roller Bearings	Roller Bearings
Center Bearing	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings	Tapered Roller Bearings

COUNTERBALANCE APPLICATION DATA

All counterbalance shown in pounds, effective at the polished rod, with weights at maximum position, including structural unbalance.

UNIT SIZE	C-114D-143-64	C-114D-119-86	C-160D-143-64	C-160D-173-74	C-160D-200-74	C-160D-213-86
Stroke	64"	86"	64"	74"	74"	86"
Structural Unbalance (lb)	+300 lb	−300 lb	+300 lb	+340 lb	+800 lb	+400 lb
Cranks (Trico Number)	D 131	D 199	D 182	D 873	D 875	D 875
C'Bal Cranks Only	2,679	3,238	2,679	4,524	7,061	5,815
2 No 9 C'Wts (800 #)	4,910	5,323	4,910	6,931	9,879	8,252
4 No 9 C'Wts	7,141	7,408	7,141	9,339	12,698	10,690
4 No 9 C'Wts + 2 Aux C'Wts (230 #)	7,782	8,008	7,782	10,031	13,508	11,391
4 No 9 C'Wts + 4 Aux C'Wts	8,424	8,608	8,424	10,723	14,319	12,092
4 No 9 C'Wts + 8 Aux C'Wts	9,707	9,807	9,707	12,107	15,940	13,494
2 No 10 C'Wts (1400 #)	6,229	6,416	6,229	8,193	11,457	9,617
4 No 10 C'Wts	9,780	9,594	9,780	11,862	14,854	13,419
4 No 10 C'Wts + 2 Aux C'Wts (430 #)	10,979	10,715	10,979	13,156	17,369	14,730
4 No 10 C'Wts + 4 Aux C'Wts	12,178	11,836	12,178	13,450	18,884	16,040
4 No 10 C'Wts + 8 Aux C'Wts	**	**	**	17,038	**	18,661

UNIT SIZE	C-160D-173-100	C-228D-213-86	C-228D-246-86	C-228D-213-120	C-320D-305-100	C-320D-256-120
Stroke	100"	86"	86"	120"	100"	120"
Structural Unbalance (lb)	+300 lb	+170 lb	+610 lb	−400 lb	+450 lb	−450 lb
Cranks (Trico Number)	D 875	D 876	D 433	D 516	D 682	D 682
C'Bal Cranks Only	4,959	5,815	8,897	5,525	7,559	5,466
2 No 9 C'Wts (800 #)	7,057	8,252	11,982	7,738	10,213	7,675
4 No 9 C'Wts	9,154	10,690	15,067	9,950	12,868	9,885
4 No 9 C'Wts + 2 Aux C'Wts (230 #)	9,758	11,391	15,954	10,586	13,631	10,520
4 No 9 C'Wts + 4 Aux C'Wts	10,361	12,092	16,841	11,223	14,394	11,155
4 No 9 C'Wts + 8 Aux C'Wts	11,567	13,494	18,616	12,495	15,920	12,425
2 No 10 C'Wts (1400 #)	8,231	9,617	13,833	9,066	11,806	9,001
4 No 10 C'Wts	11,503	13,419	18,770	12,606	16,053	12,536
4 No 10 C'Wts + 2 Aux C'Wts (430 #)	12,630	14,730	20,429	13,795	17,480	13,723
4 No 10 C'Wts + 4 Aux C'Wts	13,758	16,040	22,087	14,984	18,907	14,911
4 No 10 C'Wts + 8 Aux C'Wts	16,013	18,661	**	17,363	21,760	17,285

** Not Recommended

TRICO INDUSTRIES, INC.

BOLTED STEEL TANKS

Bolted Steel Tanks

Trico Bolted Steel tanks are made-up of pre-engineered components which are precision designed, fabricated and packaged at the factory for shipment to the job site As such, they offer a wide range of benefits that simply cannot be matched by welded or concrete tanks.

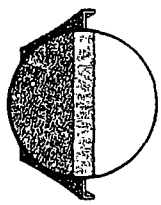
- *Their initial cost is substantially lower*
- They can be shipped in compact packages, resulting in freight economies and easier handling at the job site
- They go up faster without expensive labor skills or specialized equipment
- *They can be easily repaired, expanded or relocated*

But you don't have to sacrifice quality The quality of Trico tank components is built in at the factory, to exacting standards of quality control And we believe the finished product is as good or better than any other storage method

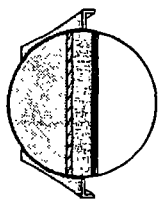
Trico has been master crafting smooth wall bolted steel tanks for liquid storage since 1918 And we are among the leaders in the factory application of epoxy coatings to tank components

But what's more, Trico tanks are designed and built to stay on the job Trico-Bond 478 is a two-component, spray-applied, factory-baked epoxy coating that shrugs off the effects of corrosion And not only does it resist corrosion in nasty solutions like hydrocarbons, sour crude oils, brines, alkalis and fertilizer, Trico-Bond 478 complies with the requirements of both the Food and Drug Administration (FDA) and the Environmental Protection Agency (EPA) as a non-contaminating coating suitable for the storage of potable liquids

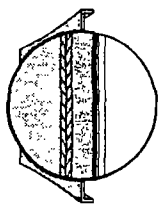
Factory Applied Corrosion Protection
From Wheelabrator surface preparation to special racking for coating protection, Trico employs the most advanced technology and ultra modern equipment in its application of baked-on coatings to tank components



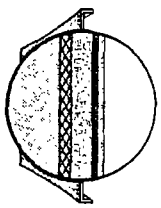
1. Surface Profiling
Note how the technique of Wheelabrator grit blasting prepares the surfaces of the steel parts to a near-white metal blasted surface and provides a surface profile of 2 to 3 mils for the best possible anchoring pattern



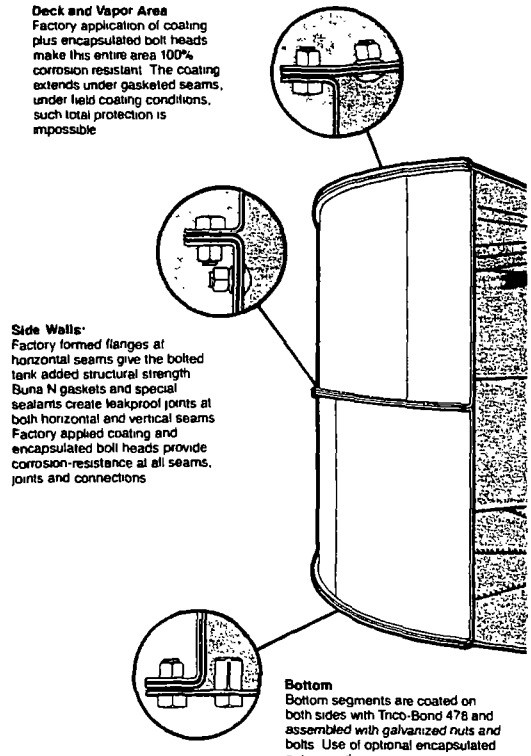
2. First Phase Application
Coatings are spray applied, in accordance with rigid specifications, to create an excellent bond to the blasted surface Interior surfaces are completely coated with Trico-Bond 478 Exterior surfaces are sprayed with a zinc-rich primer or epoxy ester



3. Second Phase Application
After parts have baked to a partial cure, the final spray of Trico-Bond 478 and the exterior coating is applied Coating application is carefully controlled to assure proper inter-coat adhesion and proper film thickness prior to the final Thermo Tron X cure



4. Cross Link Cure
In the final stage, parts are passed through a Thermo Tron X high-temperature oven where the coatings are thermally cross-linked to provide maximum bonding characteristics



General
Decks are coned to a 1·12 slope Bottoms are flat Tanks are shipped knocked down

Available Finishes
1. Trico-Bond—Interior and both sides of bottom factory coated with Trico-Bond 478 (gold). Exterior primed with a zinc-primer or epoxy ester and finished with acrylic enamel (sand) Poly-capped bolts on sidewall and deck interior connections Hot-dipped galvanized nuts and bolts on all other connections
2. **Galvanized** — Hot-dipped galvanized throughout, including nuts and bolts
3. **Red Oxide** — Interior and exterior primed with red oxide Exterior finished with aluminum paint Black nuts and bolts
4. ***Unpainted***—Black nuts and bolts.

Standard Equipment
- 24 x 46 in. cleanout door
- 20 in circular or 24 x 24 in square manway
- Vent hatch.
- Center deck support as required.
- All necessary erection hardware consisting of bolts, nuts, washers and gaskets

Optional Equipment
- Liquid level indicator with float and target board
- Unitank Flanges Threaded-type black or galvanized ductile iron, 1/2, 3/4, 1, 2, 3, 4 and 6 in
- Bolt-On Union Flanges Black or galvanized steel, 1, 2, 3, 4, and 6 in
- Welded-Type Bolted-On Nozzles Black, galvanized or Trico-Bond 478 coated, 2 through 18 in
- Stairways, walkways and ladders
- Encapsulated nuts

Bolts and Nuts
Trico Steel Tank bolts have a tensile strength of 90,000 psi and are black or hot-dipped galvanized Stainless steel, diffusion-coated or poly-capped heads are available for corrosion-resistance Plastic encapsulated steel nuts offer additional corrosion protection

BOLTED STEEL TANKS

TRICO INDUSTRIES, INC.

Gaskets and Sealants

Trico gaskets are manufactured to our specifications and meet or exceed AWWA, FDA and EPA standards We also have a gasket available to satisfy the requirements for wastewater, recycled water, and agricultural water Gaskets are prepunched with accurately spaced holes that are slightly smaller in diameter than the bolts This permits the gasket to cling to the bolts, preventing leakage along the threads and ensuring a tight, leakproof seal Every gasket is combined with a silicone sealant to further assure a satisfactory installation

Foundations

Bolted tank foundations can be a variety of types including rock, sand, wood, concrete slab or concrete retainer wall with rock or sand filled center The rock or sand foundations should be retained by a steel retainer ring 6 to 12 in deep They must all be prepared on a grade that is level, accessible, and tested for soil-bearing capability

BOLTED STEEL TANKS FOR LIQUID STORAGE

Capacity (Nominal)				Physical Characteristics					
U.S. Gal	Imperial Gal	Liters	Cubic Meters	Inside Diameter Ft./in.	Inside Diameter Meters	Shell Height Ft./in	Shell Height Meters	Weight Lb	Weight Kg
4,000	3,300	15,000	15 2	9'2-3/4"	2 8	8 -1/2"	2 45	2,066	937
8,000	6,700	30,000	30 5	9'2-3/4"	2 8	16'1"	4 9	3,164	1,435
12,000	10,000	46,000	45 7	9'2-3/4"	2 8	24'1-1/2"	7 4	4 261	1,933
16,000	13,400	61,000	60 8	9'2 3/4"	2 8	32'2"	9 8	5,361	2,432
20,000	16,600	76,000	76 0	9'2-3/4"	2 8	40'2-1/2"	12 25	6,801	3,085
24,000	20,100	91,000	91 2	9'2-3/4"	2 8	48'3"	14 7	8,241	3,738
7,800	6,500	29,600	29 4	11'5-1/2"	3 5	10'-1/2"	3 06	3,000	1,361
15,600	13,000	59,200	58 8	11'5-1/2"	3 5	20'1"	6 12	4,800	2,177
7,000	5,800	27,000	26 6	12'3-11/16"	3 8	8'-1/2"	2 45	3,290	1,492
14,000	11,700	53,000	53 2	12'3-11/16"	3 8	16'1"	4 9	4,902	2,223
21,000	17,500	80,000	79 8	12'3-11/16"	3 8	24 1-1/2"	7 4	6,781	3,075
29,000	24,100	110,000	110 2	12'3-11/16"	3 8	32'2"	9 8	8,681	3,937
36,000	30,100	137,000	137 0	12'3-11/16"	3 8	40'2 1/2"	12 25	10,751	4,876
43,000	35,800	163,000	163 4	12'3-11/16"	3 8	48 3"	14 7	12,821	5,814
11,000	9,300	42,000	42 3	15'4-5/8"	4 7	8'-1/2"	2 45	4,510	2,046
22,000	18,200	83,000	83 0	15'4-5/8"	4 7	16'1"	4 9	6,640	3,012
34,000	27,900	127,000	127 0	15'4-5/8"	4 7	24'1-1/2"	7 4	9,300	4,218
45,000	37,200	169,000	169 2	15 4 5/8"	4 7	32'2"	9 8	12,000	5 443
56,000	46,600	212,000	211 5	15'4-5/8"	4 7	40'2-1/2"	12 25	14,700	6,668
67,000	55,900	254,000	253 8	15'4 5/8"	4 7	48'3"	14 7	17,400	7,893
16,000	13,320	60,500	42 5	18'5-1/2"	5 6	8 -1/2"	2 45	5,240	2,380
32,000	26,650	121,000	85 0	18'5-1/2"	5 6	16 1"	4 9	7,640	3,470
48,000	39,970	182,000	128 4	18'5 1/2"	5 6	24'1-1/2"	7 4	9,830	4,460
64,000	53,290	242,000	170 0	18'5-1/2"	5 6	32'2"	9 8	12,640	5,740
80,000	66,620	303,000	212 5	18'5-1/2"	5 6	40 2-1/2"	12 25	16,100	7,300
96,000	79,940	363,000	255 0	18'5-1/2"	5 6	48'3"	14 7	20,400	9,250
22,000	18,200	83,000	83 0	21'6-1/2"	6 6	8'1/2"	2 45	8,060	3,656
44,000	36,400	166,000	166 0	21'6-1/2"	6 6	16'1"	4 9	11,040	5 008
66,000	54,700	249,000	249 0	21 6-1/2"	6 6	24'1-1/2"	7 4	14,020	6,359
88,000	73,000	332,000	332 0	21'6-1/2"	6 6	32 2"	9 8	17,820	8,083
110,000	91,300	415,000	415 0	21'6 1/2"	6 6	40'2-1/2"	12 25	22,770	10,328
132,000	109,500	498,000	498 0	21'6-1/2"	6 6	48'3"	14 7	28,370	12,868
32,000	26,900	122,000	122 4	26 1-7/8"	8 0	8'1/2"	2 45	9,940	4,509
65,000	53,800	245,000	244 7	26'1-7/8"	8 0	16'1"	4 9	13 030	5,910
97,000	80,700	367,000	367 1	26'1-7/8"	8 0	24'1-1/2"	7 4	17,650	8,006
129,000	107,700	489,000	489 6	26'1-7/8"	8 0	32'2"	9 8	22 650	10,274
162,000	134,600	612,000	612 0	26'1-7/8"	8 0	40'2-1/2"	12 25	29,050	13,177
194,000	161,500	734,000	734 4	26'1-7/8"	8 0	48'3"	14 7	37,050	16,806
42,000	34,700	158,000	158 0	29'8 5/8"	9 1	8 1/2"	2 45	14,490	6,573
83,000	69,500	316,000	316 0	29'8-5/8"	9 1	16'1"	4 9	18,490	8,387
125,000	104,200	474,000	473 9	29'8-5/8"	9 1	24'1-1/2"	7 4	23,780	10,786
167,000	139,000	632,000	632 0	29'8-5/8"	9 1	32'2"	9 8	31,130	14,120
209,000	173,800	790,000	790 0	29'8-5/8"	9 1	40 2-1/2"	12 25	40,330	18,293
250,000	208,500	948,000	948 0	29'8-5/8"	9 1	48'3"	14 7	50,430	22,875
71,000	58,700	267,000	267 0	38'7-5/8"	11 8	8'1/2"	2 45	25,865	11,732
141,000	117,400	534,000	534 0	38'7-5/8"	11 8	16 1"	4 9	32,115	14,567
212,000	176,000	801,000	801 0	38'7-5/8"	11 8	24 1 1/2"	7 4	40,660	18,443
282,000	235,000	1,068,000	1,068 0	38 7-5/8"	11 8	32'2"	9 8	52,160	23,659
353,000	293,600	1,335,000	1,335 0	38'7-5/8"	11 8	40 2-1/2'	12 25	66,860	30,327
423,000	352,200	1,601,000	1,607 0	38'7-5/8"	11 8	48'3"	14 7	79,600	36,100
106,000	88,300	401,000	401 3	47'6 3/8"	14 5	8'1/2"	2 45	36,000	16,300
212,000	176,500	802,000	802 5	47'6-3/8"	14 5	16'1"	4 9	46,000	20,900
318,000	264,800	1,204,000	1,203 8	47'6 3/8"	14 5	24'2"	7 4	58,000	26,300
424,000	353,000	1,605,000	1,605 0	47'6-3/8"	14 5	32 3"	9 8	73,000	33,100
530,000	441,300	2,006,000	2,006 3	47 6-3/8"	14 5	40'4"	12 3	98 000	44,500
143,000	118,900	541,000	540 7	54'11-3/4"	16 8	8'1/2"	2 45	49,230	22,330
286,000	237,800	1,081,000	1,081 3	54 11-3/4"	16 8	16 1"	4 9	62,260	28,241
428,000	356,700	1,622,000	1,622 0	54'11-3/4"	16 8	24 1-1/2"	7 4	80,460	36,496
571,000	475,700	2,163,000	2,162 8	54'11-3/4"	16 8	32'2"	9 8	101,460	46 021
166,800	138,900	632,000	631 5	59'5"	18 1	8'-1/2"	2 45	55,000	24,950
333 600	277,800	1,263,000	1,262 0	59'5"	18 1	16'1"	4 9	67,000	30,390
500,400	416,700	1,894,000	1,894 4	59'5"	18 1	24'1 1/2"	7 4	86,000	39,000
667,400	555,700	2,526,000	2,526 1	59'5"	18 1	32'2"	9 8	106,000	48,100
202,000	168,200	765,000	767 6	65'4-5/16"	19 9	8'1/2"	2 45	62,200	28,208
404,000	336,400	1,529,000	1,535 0	65 4-5/16"	19 9	16'1"	4 9	78,826	35,748
606,000	504,600	2,294,000	2,302 8	65'4 5/16"	19 9	24'1-1/2"	7 4	100,293	45,482
807,000	672,100	3,055,000	3,066 6	65 4 5/16"	19 9	32 2"	9 8	121,760	55 218
304,000	253,100	1,151,000	1,150 9	80'2-9/16"	24 5	8 1/2"	2 45	123,800	56,155
608,000	506,300	2,302,000	2,301 7	80 2-9/16"	24 5	16 1"	4 9	149,500	67,812
912,000	759,500	3,453,000	3 453 0	80'2-9/16"	24 5	24'3"	7 4	169,800	77,020
401,000	333,700	1,517,000	1,517 2	92 1-3/16"	28 0	8'1/2"	2 45	151,000	68,492
802,000	667,300	3,034,000	3,034 4	92'1-3/16"	28 0	16'1"	4 9	180,000	81,647
1 203,000	1,001,000	4,551,000	4,551 6	92 1-3/16"	28 0	24'3"	7 4	210,000	95,254

HYDRAULIC PUMPS

Kobe Hydraulic Pumping Systems

In the Kobe Hydraulic Pumping System, crude oil (or water) is taken from the storage tank and fed to the Triplex Pump. The power fluid, now under pressure built up by the Triplex, is controlled by valves at the Control Station and distributed to one or more wellheads. The power fluid passes through the wellhead valving and is directed to the downhole pump. This pump is composed of an engine and a pump as a single assembly. The power fluid actuates the engine which in turn drives the pump. The power fluid returns to the surface with the produced oil and is piped to the storage tank.

Complete Flexibility

Kobe Systems are ideal for either single or multiple well installations. The flexibility with which Kobe components can be placed, in relation to terrain or other considerations, solves many production problems. For example, it is possible to control an entire lease from a single location.

Operation

All hydraulic pumping systems incorporate the following functional segments.

Power Fluid Storage—Wash tank system where mixed power oil and production return from the wells with oil being taken from the top of the tank for the Triplex pump.

Prime Mover—Electric motor or gas engine.

Surface Pump—Kobe high pressure Triplex Pumps are designed especially for this purpose.

Control Station—Power fluid can be directed to a manifold any distance from the plant and from there, the pump speed of each well of many can be controlled.

Wellhead—The absence of moving equipment allows many arrangements of wellheads—above or below ground—above or below water, etc.

Subsurface Well Equipment—A variety of downhole systems can be used. Two basic types are the "Casing Free" and "Parallel Free".

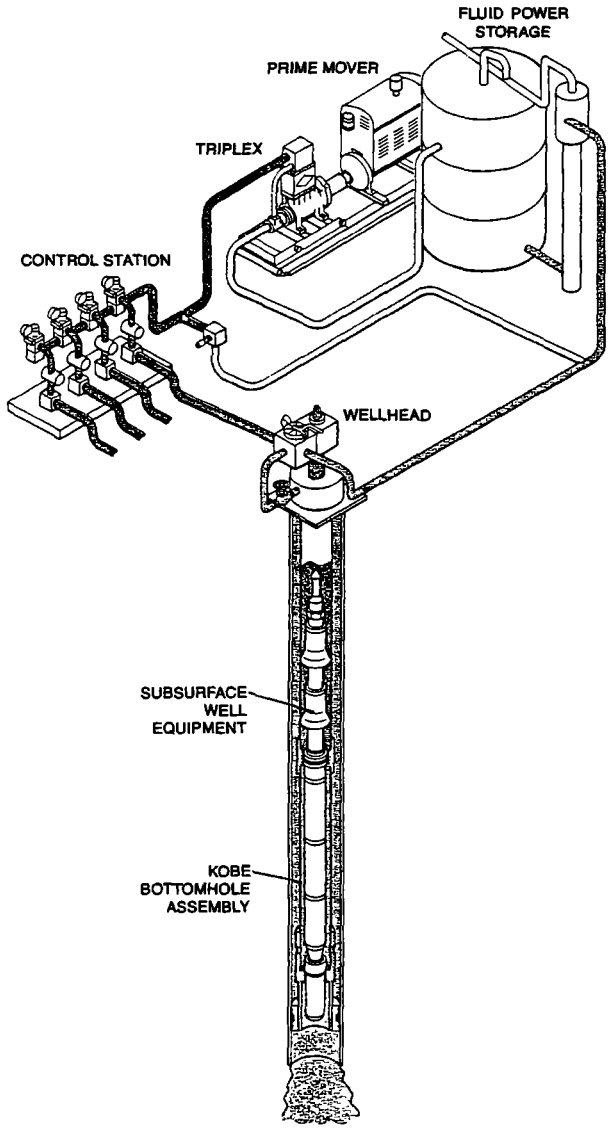
Downhole Pump—The design operating principle is extremely simple. The engine is actuated by power fluid controlled by the engine valve. The engine piston carries a valve rod (which hydraulically actuates the valve) and a middle rod which connects to the pump piston. A lower rod, same diameter as the valve and middle rods, extends from the pump piston down into a closed-end balance tube. All rods and pistons are hollow so that the same power fluid pressure is exerted on the same top and bottom areas so that the assembly is always in complete balance.

The pump is a simple double acting piston pump with intake and exhaust valves at each end of the pump cylinder. At the middle of the piston there is a lubrication groove which opens into the piston center and is supplied with high pressure clean power fluid to lubricate and purge the piston-to-liner fit.

The design features result in the following important advantages:

Pump Off or Erratic Loading—The pump is protected by the engine valve. In addition to reversing the engine piston, the valve also controls its acceleration and in cases of partial pump load the valve "governs" to prevent runaway damage.

Hydraulic Balance—The piston and rod assembly is always completely balanced axially. All other hydraulic elements in the pump are also radially balanced.



HYDRAULIC PUMPING SYSTEM

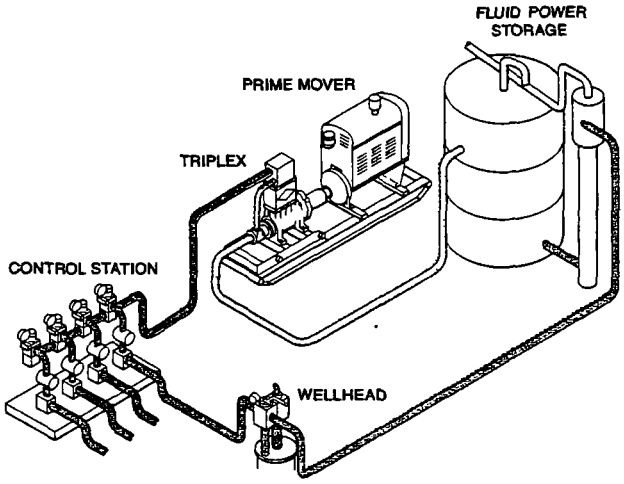
Sand and Water Production—The built-in high pressure lubrication system protects all sliding fits with high pressure power fluid.

Gas Locking—Impossible with the Kobe pump. Positive stroke length allows a minimum clearance volume design. With constant leakage of some power fluid past the piston, clearance volume becomes zero and all gas is exhausted.

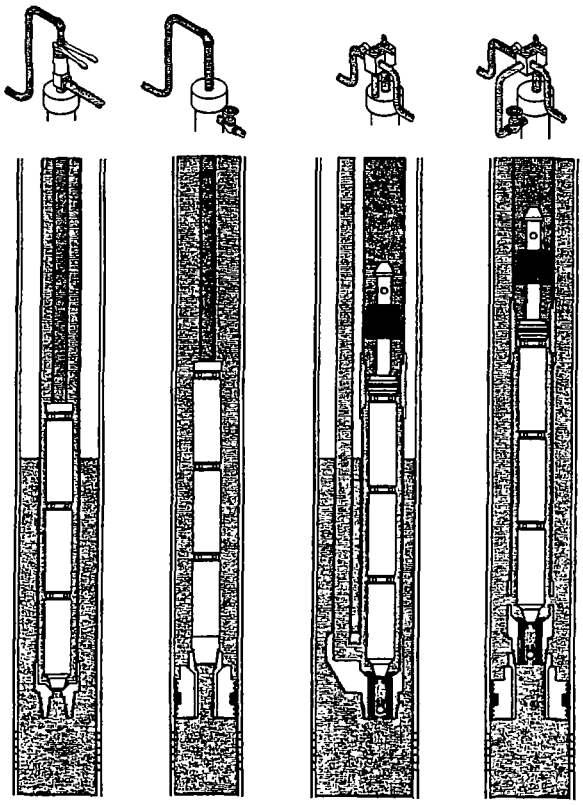
Pump Valves—Double acting principle requires each valve assembly to handle only one-half the pump capacity. Lower volume plus the large area of multiple valves (four intake and four exhaust at each end) provides favorable valving conditions.

Pump Speed—The Kobe pump is purposely designed for relatively short stroke and high frequency. In terms of velocity, speeds are similar to rod pumping. For example, 80, 12″ spm in a Kobe pump has the same velocity as a rod unit operating at 15, 64″ spm.

Short stroke design keeps the reciprocating mass light and higher speeds are practical. While rated speeds have been set for design guides, the Kobe pump speed is almost entirely limited by the ability to charge the pump suction.



OPEN POWER FLUID SYSTEM



OPF CONFIGURATIONS

Kobe Power Fluid Systems

In Kobe Hydraulic Oil Well Pumping Systems there are two basic power fluid circuits, the "open" power fluid (OPF) and the "closed" power fluid (CPF) system.

The open power fluid system, because it allows the exhausted power fluid to mix with the produced fluid, is so designated to distinguish it from the closed power fluid which keeps the power fluid separated from the produced fluid.

Open Power Fluid System (OPF)

In the OPF system, the surface pump obtains clean crude oil from the top of a power oil settling tank. There are four basic downhole arrangements in the OPF system.

Fixed Insert

In this system, the downhole pump is run in on a small string of tubing inside of the production tubing. Input power oil goes down the small, inner string, and production plus exhausted power oil returns up the annulus between the two strings. Free gas is produced through the tubing-casing annulus.

Fixed Casing

In this system, the downhole pump is run in on any size tubing and landed on a casing packer. Input power oil goes down this tubing string and production plus exhausted power oil returns up the annulus. All free gas must be produced through the pump.

Free Parallel

In this system, two strings of tubing, connected at the bottom with a crossover block, are run independently or simultaneously, and a retrievable standing valve is inserted. The "Free Pump" is circulated down the larger of the two strings by power oil and on landing makes a seating seal on the standing valve and an upper seal in a special collar. Continued power oil circulation starts and operates the pump's engine. Production plus exhausted power oil goes through the fluid crossover block and returns up the smaller tubing string. Free gas is produced through the casing-tubing annulus.

Free Casing

In this system, one string of tubing is run and landed on a casing packer. The "Free Pump" is circulated down this string and in operation the exhausted power oil plus production is produced up the casing annulus. All free gas must be produced through the pump.

Closed Power Fluid System (CPF)

The closed power fluid (CPF) system provides a method of returning the exhausted power from the downhole pump's engine through a separate channel to the surface. Thus it does not mingle with the produced fluid. In effect, the hydraulic power fluid is in a "closed circuit". The same fluid is used over and over with only the addition of a small amount of make-up fluid. The make-up fluid replaces the fluid used to lubricate the pump end of the downhole pump. The power fluid used may be selected from a wide range variety of fluids available but most common is clean produced crude oil or water. Because the power fluid in the closed system does not mix with the production, the major source of power fluid contamination is eliminated. Thus the CPF system insures long pump life by providing better quality power fluid. In addition, the system simplifies well testing because the circulated power fluid does not need to be subtracted from the return fluid to obtain net oil produced.

HYDRAULIC PUMPS

TRICO-DRAULIC

The TRICO-DRAULIC is a complete, self-contained hydraulic pumping system that is typically mounted at the well-site and does not require a concrete foundation. Well fluids are separated by the TRICO-DRAULIC into power fluid and produced (flowline) fluid. The produced fluid is directed to the tank battery and the power fluid is cleaned (by cyclone desanders) for use in operating the downhole *piston pump or jet "Free Pump."*

The TRICO-DRAULIC permits an individual well to be produced hydraulically and at a cost competitive with other methods of artificial lift.

Other advantages of the TRICO-DRAULIC Pumping System include:

- *Compact and easily installed unit.*
- Economical and flexible.
- Operates with Kobe downhole piston or jet pumps.
- No pre-planning of a central facility.
- No changes required in an existing tank battery.
- No need for increased central treating facilities.
- A quick, simple, economical way to produce a single well hydraulically.
- Fully portable single or two-skid mounted design can be easily installed or moved as required by lease production.

Features to look for in the TRICO-DAULIC

Three-Phase Separator
Separates well fluids to provide source of power fluid to operate the system. *Three vessel sizes are available 40" x 10', 48" x 10', 60" x 20'.*

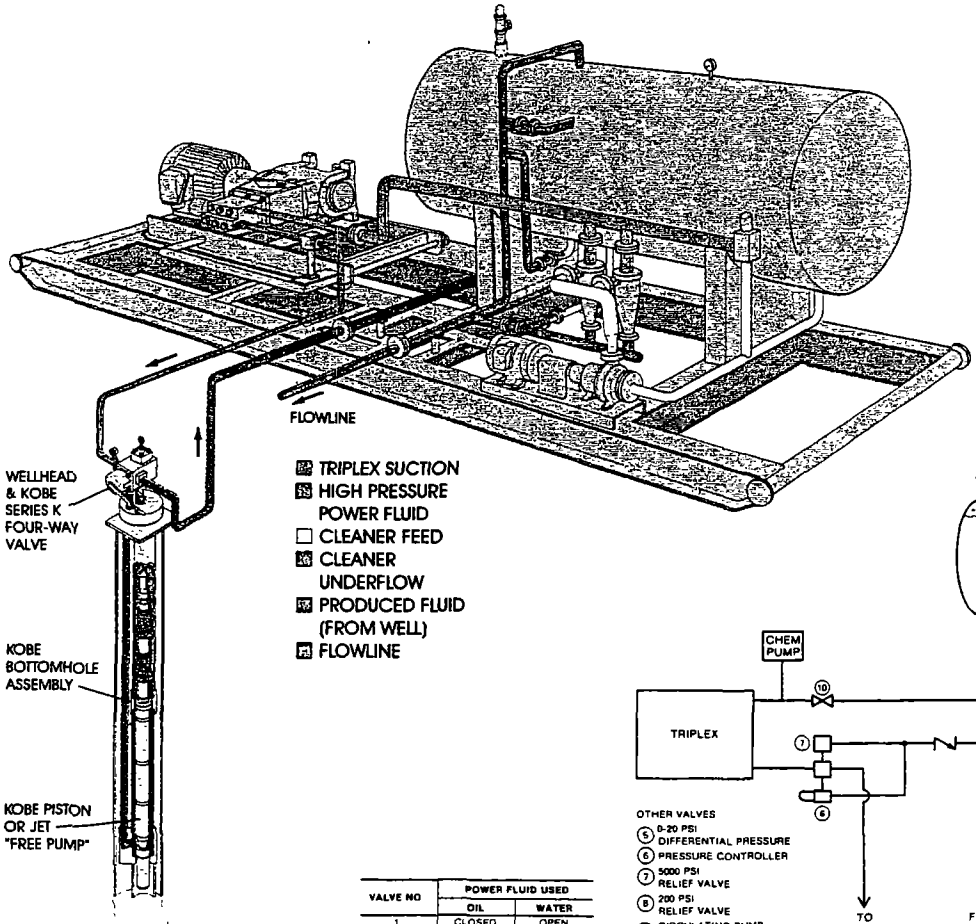
Cyclone Cleaners
These condition the fluid by removing solids and contaminants to provide clean power fluid.

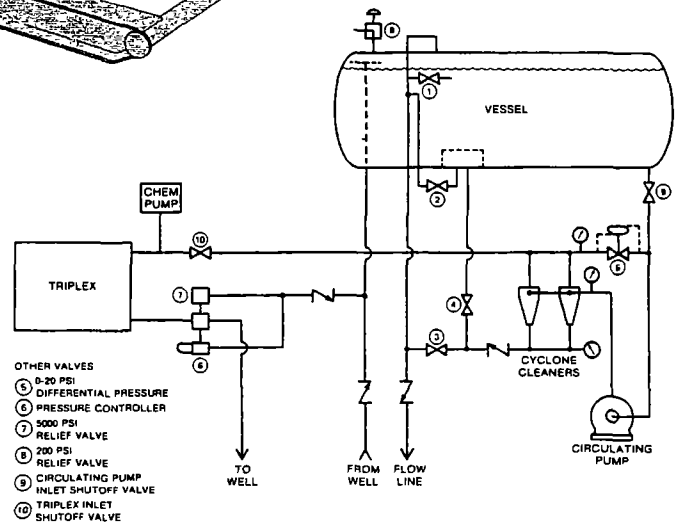
By choosing the number of cyclones to provide maximum power fluid conditioning, the system has an adequate clean power fluid supply. The circulating pump assures that the power fluid makes multiple passes through the cyclones before reaching the Kobe Triplex Pump. Power conditioning is controlled and constant — not dependent on the variable flow rates from the well.

Circulating Pump
Provides optimum circulating rate through the cyclone cleaners.

Kobe Triplex Power Pump
Sized to provide high pressure power fluid for system operation. A field-proven, dependable power pump for continuous-duty operation. For maximum flexibility, the Kobe Triplex Pump is offered in a number of sizes from 25 hp to 200 hp.

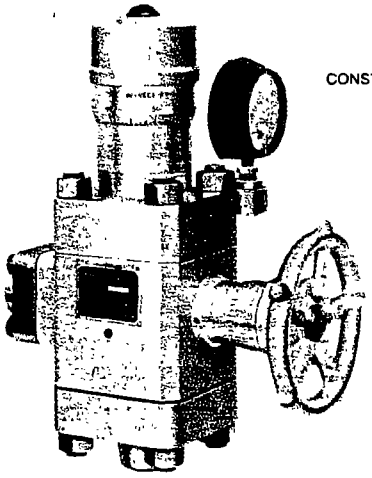
Single or Two-Skid Models
Single skid models are available with electric motors as the prime mover for the Triplex Pump. With the two-skid model, the separator vessel and the Triplex Pump are mounted on their own skid base for maximum safety and installation efficiency. The 60" x 20' vessel is only available as a two-skid package. If necessary, both skids can be housed for foul-weather operation.





VALVE NO	POWER FLUID USED	
	OIL	WATER
1	CLOSED	OPEN
2	OPEN	CLOSED
3	CLOSED	OPEN
4	OPEN	CLOSED

Auxiliary Equipment/Controls

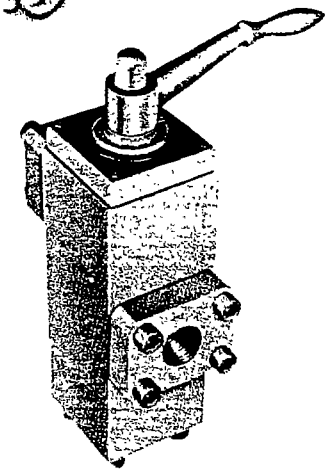


CONSTANT FLOW CONTROLLER

Constant Flow Controller

The Constant Flow Controller is a high-pressure, hydraulic system control valve that maintains a constant, preselected rate of flow despite upstream and downstream pressure changes. Flow rates are quickly and easily selected with a handwheel graduated in barrels per day.

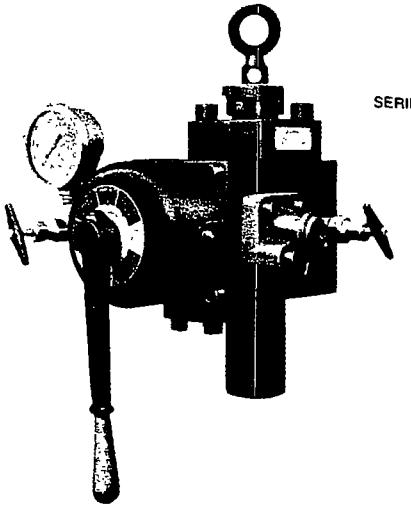
The Constant Flow Controller is designed for operating pressures up to 5000 psi, for continuous service year-in and year-out, and installation in any position It is adaptable to crude oil, treated water, sea water, oil field brines, or fluids of other viscosities.



SERIES K CONSTANT FLOW CONTROL VALVE

Series K Constant Flow Control Valve

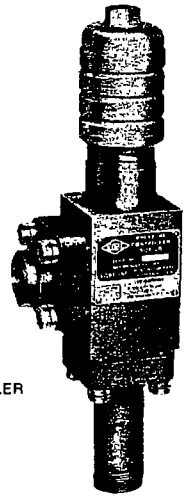
The Series K Constant Flow Control Valve is widely used as a control valve for subsurface hydraulic pumping systems It is available in a flanged header design and in a variety of other designs to meet individual requirements. This manifolding is adaptable to the use of electronic flow meters or positive displacement meters With the Series K CFCV, the downhole pump will not be affected by changing well conditions or changes in header pressure at the control manifold. The Series K CFCV stabilizes the operation by delivering pre-selected volumes of power fluid to the pump regardless of the pressure differential existing between it and the manifold pressure



SERIES K FOUR-WAY VALVE

Series K Four-Way Valve

Rated at 5000 psi maximum working pressure and 5000 BPD nominal flow rate in all valve positions, the Series K Four-Way Valve may be used either as a wellhead mounted valve with pump catcher, or as a separate base mounted pump control station The wellhead four-way valve is currently available for 2 in. and 2-1/2 in. free type pump installations.



2B PRESSURE CONTROLLER

2B Pressure Controller

The 2B Pressure Controller is a 5000 psi back-pressure control valve It has an interchangeable spring, stem, and seat for pressure ranges of: 0–2500 psi, 0–3500 psi, and 0–5000 psi. The tungsten carbide stem and seat assure long life for continuous by-passing operation. The 2B Pressure Controller can be furnished with threaded or welding outlets or for flanged mounting in the control headers Capacity, 0–2000 BPD.

TRICO INDUSTRIES, INC. **HYDRAULIC PUMPS**

Hydraulic Downhole Piston Pumps

Hydraulic Downhole Pumps Type A, B, D, and E are all double-acting, may be used in open or closed power fluid systems, and all are furnished in 2, 2-1/2, and 3 in. tubing sizes. The Type A also is available in a 4 in. tubing size. The A, B, and D models may be furnished with double pump ends and many combinations of engine and plunger sizes to meet all depth and volume requirements.

Type A Pump

Fluid passages are built into this model, providing double action of the pump and requiring only a single external seal at the top of the unit.

Type B Pump

The Type B pump is provided with external seals that allow the pump-tubing annulus to be the passages to provide for the double acting features of the pump. By thus eliminating the outer tubes used on the Type A pump, the cylinders and pistons are made larger to give greater pump capacity.

Type D Pump

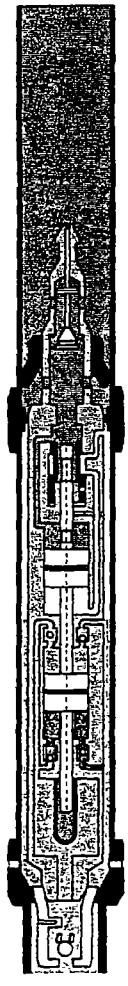
The Type D pump is a Type B pump with a Type A engine added. The added engine piston area allows the Type D pump to have lift capabilities approximately 65% greater than the Type B pump.

Type E Pump

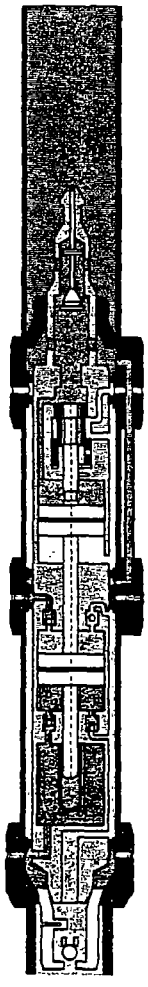
The Type E pump is a high-volume, double-acting Free Pump. The design of the Type E allows for—a long, slow stroke, thereby increasing engine valve and production valve life; a high compression ratio which virtually eliminates gas locking.

Double pump-end combinations are not possible with the Type E, as all pump sizes

PUMP SIZE Nominal × Engine —Pump × Pump (Inches)	Part Number	DISPLACEMENT Pump End At Rated Speed (BPD)	(BPD per SPM) Engine	(BPD per SPM) Pump	Area Ratio P/E	Area Ratio E/P	Max. Fluid Lift (ft.)	Approx. Pump Length (in.)	Approx. Pump Weight (lb.)
TYPE A DOWNHOLE PUMPS									
Fits in 2⅜" O.D. Tubing or larger									
2 × 1—13/16	44-30-21	139	2 15	1 15	545	1 834	15,000	78	42
2 × 1—7/8	44-60-21	175	2 15	1 44	.687	1 456	14,500	78	42
2 × 1—1	44-40-21	255	2.15	2 10	1 000	1.000	10,000	78	42
2 × 1—13/16	44-50-21	393	2 15	3 25	1.546	.647	6,500	78	42
2 × 13/16—7/8	45-60-21	175	3 30	1 44	444	2.252	15,000	78	42
2 × 13/16—1	45-40-21	255	3 30	2 10	.647	1.545	15,000	78	42
2 × 13/16—13/16	45-50-21	393	3 30	3.25	1.000	1 000	10,000	78	42
2 × 13/16—1 × 1	45-44-21	508	3 30	4.20	1 290	775	7,700	132	70
2 × 13/16—13/16 × 1	45-54-21	647	3 30	5 35	1 647	607	6,100	132	70
2 × 13/16—13/16 × 13/16	45-55-21	787	3 30	6.50	2.000	500	5,000	132	70
Fits in 2⅞" O.D. Tubing or larger									
2½ × 1¼—1	54-20-21	256	5 02	2.56	520	1 923	15,000	105	85
2½ × 1¼—1⅛	54-30-21	367	5 02	3 67	746	1 340	13,400	105	85
2½ × 1¼—1¼	54-40-21	492	5 02	4.92	1 000	1 000	10,000	105	85
2½ × 1¼—17/16	54-50-21	703	5 02	7.03	1 431	700	7,000	105	85
2½ × 17/16—1¼	55-40-21	492	7 13	4.92	.700	1.428	14,300	105	85
2½ × 17/16—17/16	55-50-21	703	7 13	7 03	1 000	1 000	10,000	105	85
2½ × 15/8—17/16	57-50-21	703	9 27	7 03	770	1 290	13,000	105	85
2½ × 15/8—1½	57-60-21	745	9 27	7 45	820	1 220	12,200	105	85
2½ × 15/8—15/8	57-70-21	909	9.27	9 09	1 000	1 000	10,000	105	85
2½ × 17/16—1¼ × 1¼	55-44-21	984	7 13	9 84	1 400	.714	7,200	175	140
2½ × 17/16—17/16 × 1¼	55-54-21	1195	7 13	11 95	1 701	588	5,900	175	140
2½ × 17/16—17/16 × 17/16	55-55-21	1406	7 13	14 06	2 000	500	5,000	175	140
2½ × 15/8—15/8 × 15/8	57-77-21	1818	9.27	18 18	2 000	500	5,000	175	140
Fits in 3½" O.D. Tubing or larger									
3 × 1½—1¼	64-20-21	486	9 61	5 59	592	1 686	15,000	136	168
3 × 1½—13/8	64-30-21	646	9.61	7 43	787	1 271	12,700	136	168
3 × 1½—1½	64-40-21	821	9 61	9 44	1 000	1 000	10,000	136	168
3 × 1½—1¾	64-50-21	1218	9 61	14.00	1 480	676	6,700	136	168
3 × 1¾—1½	65-40-21	821	14 17	9 44	676	1 480	14,800	136	168
3 × 1¾—1¾	65-50-21	1218	14 17	14 00	1 000	1 000	10,000	136	168
3 × 1¾—1¼ × 1¼	65-22-21	973	14 17	11 18	800	1.249	12,500	223	280
3 × 1¾—1½ × 1½	65-44-21	1642	14 17	18 88	1 351	740	7,400	223	280
3 × 1¾—1¾ × 1½	65-54-21	2093	14 17	23 44	1 675	.597	6,000	223	280
3 × 1¾—1¾ × 1¾	65-55-21	2436	14 17	28 00	2 000	.500	5,000	223	280
Fits in 4½" O.D. Tubing or larger									
4 × 2—1¾	84-30-21	1109	21 44	14 40	687	1 456	14,600	173	370
4 × 2—2	84-40-21	1617	21 44	21 00	1 000	1 000	10,000	173	370
4 × 2—23/8	84-50-21	2503	21 44	32 50	1 541	.649	6,500	173	370
4 × 23/8—2	85-40-21	1617	32 94	21 00	649	1 540	15,000	173	370
4 × 23/8—23/8	85-50-21	2503	32 94	32 50	1 000	1 000	10,000	173	370
4 × 23/8—2 × 1¾	85-43-21	2726	32 94	35.40	1 094	914	9,200	283	614
4 × 23/8—2 × 2	85-44-21	3234	32 94	42 00	1 299	770	7,700	283	614
4 × 23/8—23/8 × 2	85-54-21	4120	32.94	53 50	1 650	606	6,100	283	614
4 × 23/8—23/8 × 23/8	85-55-21	5005	32 94	65.00	2 000	.500	5,000	283	614



TYPE A SINGLE



TYPE B SINGLE

HYDRAULIC PUMPS

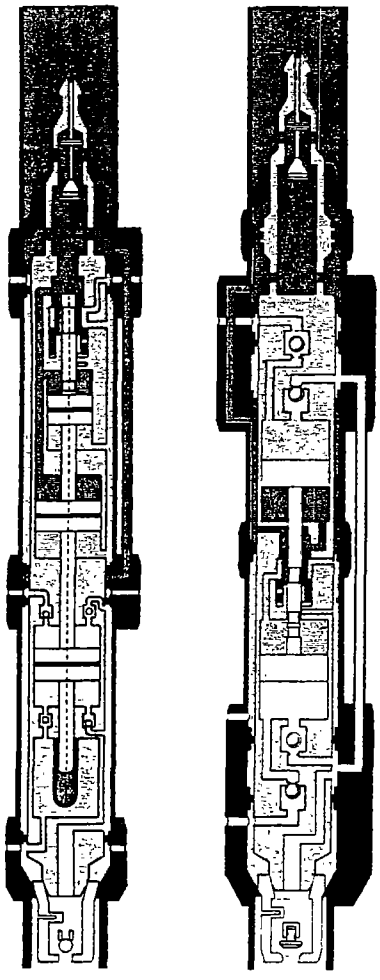
TRICO INDUSTRIES, INC.

Hydraulic Downhole Piston Pumps

have only two pistons—each acting as engine and pump, depending on the position of the engine valve. For example, on an upstroke, the top piston is acting as engine and pump, while the bottom piston is pulling well fluid into the lower cylinder and expelling spent power fluid from the previous stroke at the same time. When the engine valve reverses and a downstroke is made, the bottom piston then becomes the engine and pump, while the top cylinder is filling with well fluid.

Tandem Pumps

Two complete pumps, Type A, B, D or E, can be used in one tubing string. The pumps are physically connected by a pump connector, with seals for separating them hydraulically, and run as one unit in a suitable bottomhole assembly. This allows for pumping two zones or for pumping large volumes from single zone wells.



TYPE D SINGLE — TYPE E

PUMP SIZE Nominal × Engine —Pump × Pump (Inches)	Part Number	DISPLACEMENT Pump End At Rated Speed (BPD)	(BPD per SPM) Engine	Pump	Area P/E	Ratio E/P	Max. Fluid Lift (ft.)	Approx. Pump Length (in.)	Approx. Pump Weight (lb.)
TYPE A DOWNHOLE PUMP									
Fits in 2⅜" O.D. Tubing or larger									
2 × 1⅜—1⁵⁄₁₆	49-50-22	381	4 54	3 15	700	1 429	14,000	97	60
2 × 1⅜—1⅜	49-90-22	544	4 54	4 50	1 000	1 000	10,000	97	60
2 × 1⅜—1⁵⁄₁₆ × 1⁵⁄₁₆	49-55-22	750	4 54	6.21	1 380	725	7,200	129	77
2 × 1⅜—1⅜ × 1⁵⁄₁₆	49-95-22	914	4.54	7 55	1 680	595	5,900	129	77
2 × 1⅜—1⅜ × 1⅜	49-99-22	1076	4 54	8 90	1 980	505	5,000	129	77
Fits in 2⅞" O.D. Tubing or larger									
2½ × 1¾—1½	59-60-22	744	10 96	7 44	685	1 460	14,600	125	100
2½ × 1¾—1¾	59-90-22	1086	10 96	10 86	1 000	1.000	10,000	125	100
2½ × 1¾—1½ × 1½	59-66-22	1452	10 96	14 52	1 336	.749	7,500	185	135
2½ × 1¾—1¾ × 1½	59-96-22	1794	10 96	17 94	1 652	605	6,000	185	135
2½ × 1¾—1¾ × 1¾	59-99-22	2136	10 96	21.36	1 957	519	5,200	185	135
Fits in 3½" O.D. Tubing or larger									
3 × 2⅛—1⅞	69-60-22	1388	21 75	15.96	740	1 351	13,500	158	186
3 × 2⅛—2⅛	69-90-22	1875	21 75	21 55	1 000	1.000	10,000	158	186
3 × 2⅛—1⅞ × 1⅞	69-66-22	2727	21 75	31 34	1 454	688	6,900	210	260
3 × 2⅛—2⅛ × 1⅞	69-96-22	3214	21 75	36 94	1 714	583	5,800	210	260
3 × 2⅛—2⅛ × 2⅛	69-99-22	3700	21 75	42 53	1 974	507	5,100	210	260
TYPE D DOWNHOLE PUMP									
Fits in 2⅜" O.D. Tubing or larger									
2 × 1³⁄₁₆ × 1⅜—1⅜	4D-90-22	544	7 79	4 50	581	1 721	15,000	122	75
2 × 1³⁄₁₆ × 1⅜—1⁵⁄₁₆ × 1⁵⁄₁₆	4D-55-22	750	7 79	6 21	802	1 247	12,000	154	90
2 × 1³⁄₁₆ × 1⅜—1⅜ × 1⁵⁄₁₆	4D-95-22	914	7 79	7.55	976	1 025	10,000	154	90
2 × 1³⁄₁₆ × 1⅜—1⅜ × 1⅜	4D-99-22	1076	7 79	8 90	1 150	870	8,700	154	90
Fits in 2⅞" O.D. Tubing or larger									
2½ × 1⁷⁄₁₆ × 1¾—1½	5D-60-22	744	17 99	7 44	411	2 433	15,000	168	135
2½ × 1⁷⁄₁₆ × 1¾—1¾	5D-90-22	1086	17 99	10 86	608	1 645	15,000	168	135
2½ × 1⁷⁄₁₆ × 1¾—1½ × 1½	5D-66-22	1452	17 99	14 52	813	1 230	12,300	228	180
2½ × 1⁷⁄₁₆ × 1¾—1¾ × 1½	5D-96-22	1794	17 99	17 94	.976	1 025	10,000	228	180
2½ × 1⁷⁄₁₆ × 1¾—1¾ × 1¾	5D-99-22	2136	17 99	21.36	1 196	836	8,400	228	180
Fits in 3½" O.D. Tubing or larger									
3 × 1¾ × 2⅛—1⅞	6D-60-22	1388	35 74	15 96	449	2 227	15,000	202	240
3 × 1¾ × 2⅛—2⅛	6D-90-22	1875	35 74	21 55	606	1 650	15,000	202	240
3 × 1¾ × 2⅛—1⅞ × 1⅞	6D-66-22	2727	35 74	31 34	882	1 134	11,300	253	300
3 × 1¾ × 2⅛—2⅛ × 1⅞	6D-96-22	3214	35 74	36 94	1 039	962	9,600	253	300
3 × 1¾ × 2⅛—2⅛ × 2⅛	6D-99-22	3700	35 74	42 53	1 197	8 35	8,300	253	300
TYPE E DOWNHOLE PUMP									
Fits in 2⅜" O.D. Tubing or larger									
2 × 1⅜	4E-00-22	1317	17 59	20 27	1 152	868	8,700	156	75
Fits in 2⅞" O.D. Tubing or larger									
2½ × 1¾	5E-00-22	2400	35 45	40 63	1 146	873	8,700	185	110
Fits in 3½" O.D. Tubing or larger									
3 × 2⅛	6E-00-22	4007	62 77	71 70	1 142	876	8,700	220	165
Fits in 4½" O.D. Tubing or larger									
4 × 2⅞*	8E-00-22	8135	162 53	184 90	1 137	880	8,800	—	—

*Consult factory for availability

NOTE: Last 2 digits of part number are—21 for OPF (Open Power Fluid), 22 for CPF (Closed Power Fluid) Production Unseat, and 23 for Closed Power Fluid PRU (Power Return Unseat)

PUMP STROKE LENGTH FOR TYPE A For 2" pump, 12", for 2½" pump, 18", for 3" pump, 24", and for 4" pump, 30"

PUMP STROKE LENGTH FOR TYPE B and D For 2" pump, 12", for 2½" pump, 18", for 3" pump, 24"

PUMP STROKE LENGTH FOR TYPE E For 2" pump, 46", for 2½" pump, 57", for 3" pump, 68", and for 4" pump, 96"

MAXIMUM PUMP O D FOR TYPE A and E For 2" pump, 1 889", for 2½" pump, 2 326", for 3" pump, 2 826", and for 4" pump, 3 826"

MAXIMUM PUMP O D FOR TYPE B and D For 2" pump, 1 889", for 2½" pump, 2 326", for 3" pump, 2 826"

MAXIMUM RATED SPEED FOR FOR TYPE A For 2" pump, 121 SPM, for 2½" pump, 100 SPM, for 3" pump, 87 SPM, for 4" pump, 77 SPM

MAXIMUM RATED SPEED FOR FOR TYPE B and D For 2" pump, 121 SPM, for 2½" pump, 100 SPM, for 3" pump, 87 SPM

MAXIMUM RATED SPEED FOR FOR TYPE E For 2" pump, 65 SPM, for 2½" pump, 59 SPM, for 3" pump, 56 SPM, for 4" pump, 44 SPM

HYDRAULIC PUMPS

Jet Pumps

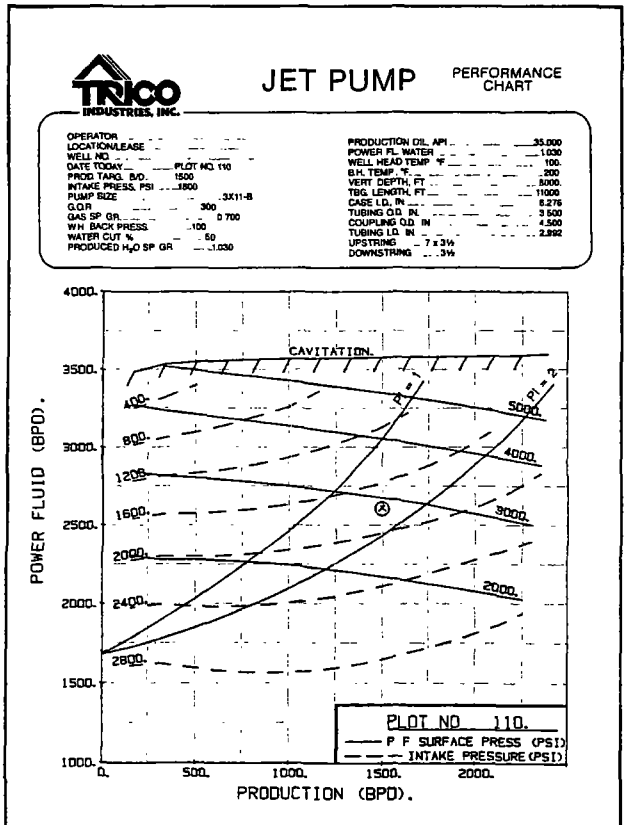
Jet Pump
The hydraulic downhole pump with no moving parts.

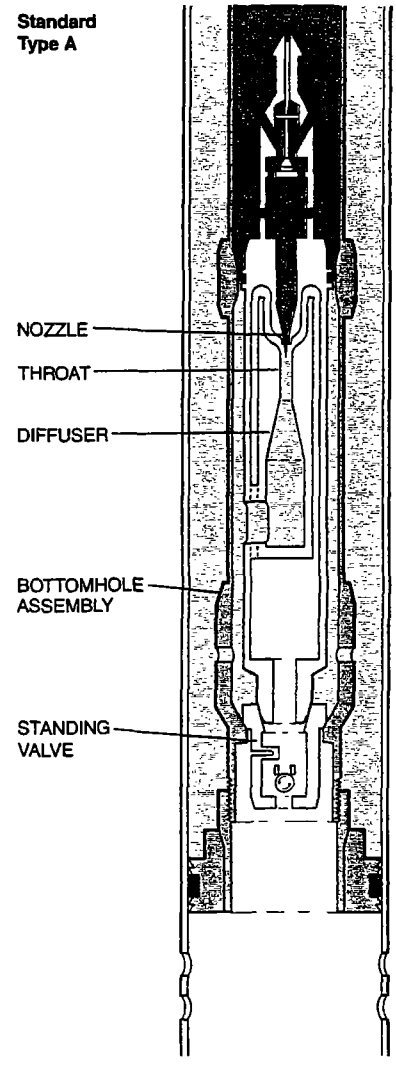
- Has no moving parts.
- Is applicable to wells of any depth.
- Can be a "FREE PUMP", i.e., it can be circulated in and out of the well.
- Is field repairable.
- Is tolerant of poor quality power fluid—oil, water, diluent or other liquid.

How It Works

Power fluid at high pressure (low velocity) is converted to a low pressure (high velocity) jet by the nozzle. The pressure at the exit of the nozzle becomes lower than the pressure in the suction passageway, and fluid is drawn in from the well bore. The suction fluid becomes entrained with the high velocity jet and the pumping action then begins. After mixing in the throat, the combined power fluid and suction fluid is then slowed down by the diffuser. Because the velocity is lowered, the pressure is raised—raised to a value sufficient to pump the fluid to the surface.

A full range of nozzle and throat sizes are available to allow power fluid rate and pressure to be varied to meet various requirements.





Operating charts are computer generated from compiled data. Production rate is shown on the horizontal scale and power fluid rate is shown on the vertical scale. The dashed lines are pump intake pressures (suction pressures) and the solid lines are the surface power fluid injection pressures. In this example, the P.I. (Productivity Index) is given as between 1.0 and 2.0 BPD/PSI. The red lines added to the chart represent these two values of the well's producing characteristics.

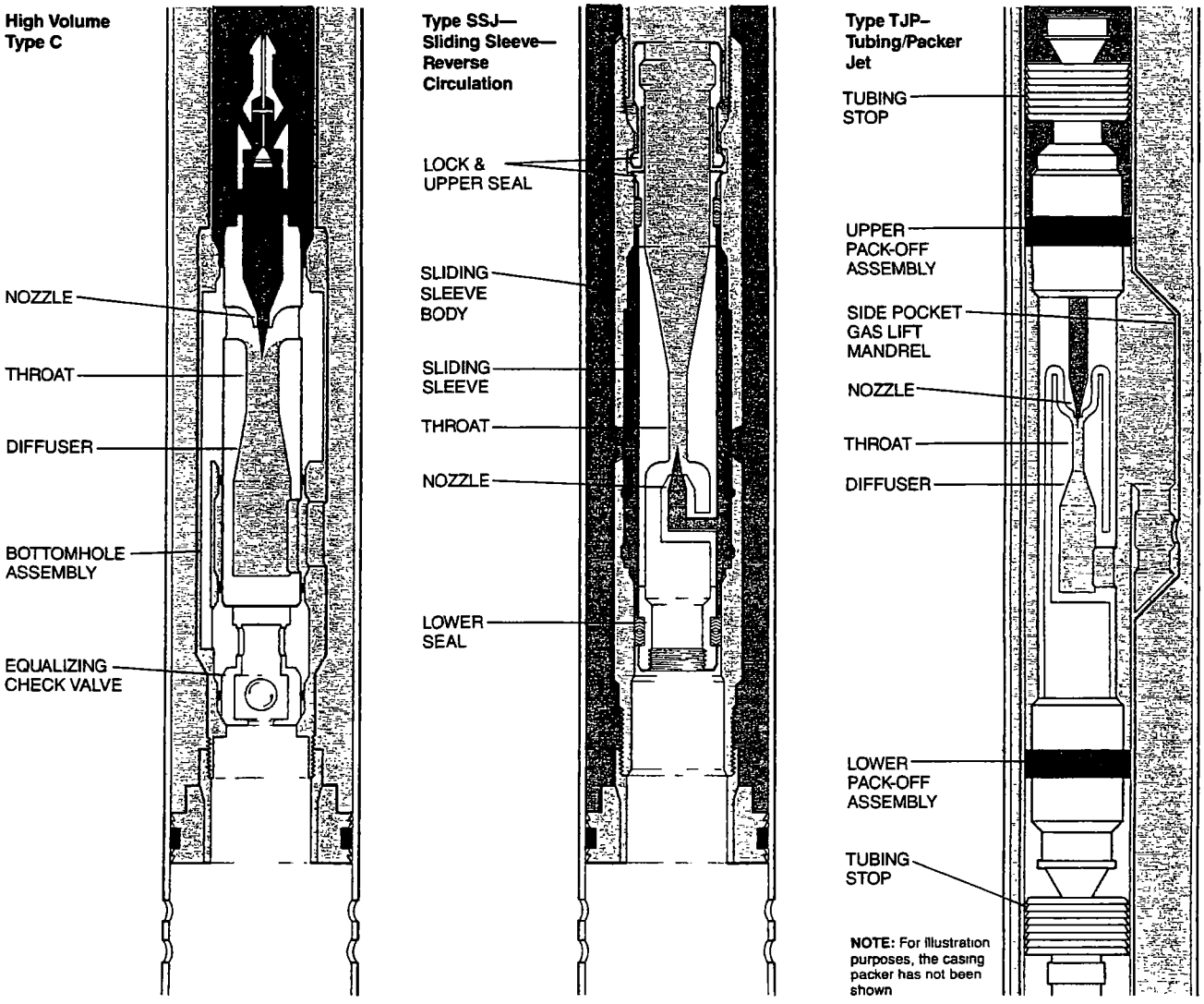
Jet Free Pump

The illustration above shows the jet "FREE PUMP" in a bottomhole assembly that will also accommodate a hydraulic piston pump.

HYDRAULIC PUMPS

TRICO INDUSTRIES, INC.

Jet Pumps



Power Fluid Well Fluid Exhausted Power Fluid & Produced Fluid

Type C Jet Pump

Illustrated above, the high volume Type C jet pump is shown with power fluid directed down the tubing. It can also be installed to jet up the tubing.

Sliding Sleeve Jet Pump

The SSJ jet pump is designed to seal in a sliding sleeve. The illustration shows the pump jetting up the tubing but can also be installed for power fluid down the tubing. This type pump is especially suited for drill stem testing, because surface pumps are already in place and well production capacity is uncertain (jet pumps can operate at a rate of 5 percent of rated capacity without damage to the pump).

Tubing Packer Jet Pump

The illustration above shows the TPJ pump installed in a well by wireline without first pulling the tubing. It shows wireline set tubing packers at the top and bottom of the pump and straddling a gas lift mandrel. An alternate design straddles wireline perforated tubing perforations. If a seating nipple exists at the proper depth, it can be substituted for the bottom tubing packer. Circulation can be up the tubing or down the tubing.

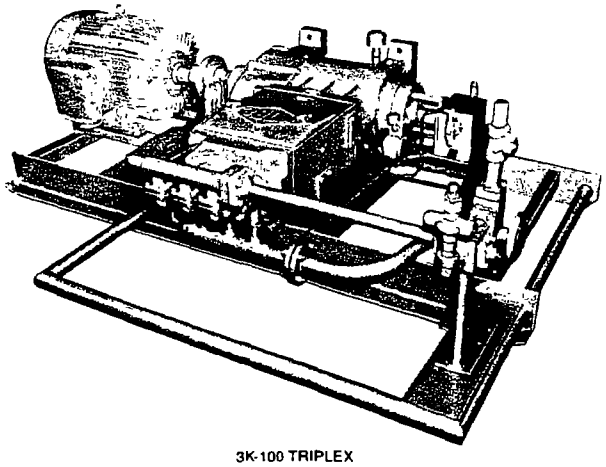
TRICO INDUSTRIES, INC. HYDRAULIC PUMPS

Triplex Pumps

The 3K-100 Triplex Pump and the 4K-200 Triplex Pump have proved to be the most flexible packages for individual or multiple oil well or water flood applications. Illustrated are typical complete power unit skids. The complete assembly for both the 3K-100 and 4K-200 Triplex are ready for quick, easy installation and connection to any type of drive system

For the 3K-100 Triplex, available standard single reduction gear ratios are 3.696 or 3 925; optional double reduction gear ratios are 3.079, 3.579, 4.330, 5.941 or 8.815.

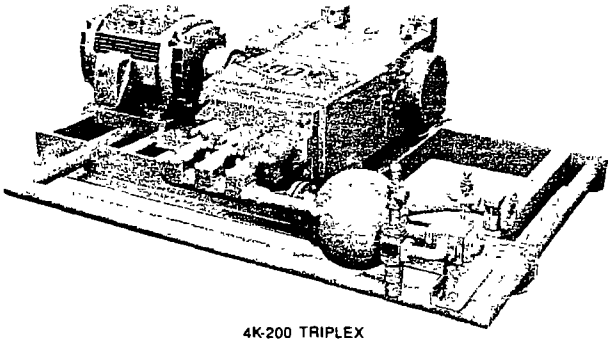
For the 4K-200 Triplex, standard single reduction gear ratios are 2 607, 3.407, 3 958, 4 318 or 4.850. Gearless units are available for slow speed engine drive applications



3K-100 TRIPLEX

Supplementary Equipment

- Circulating Pump
- Plunger Packing Lubricator
- Chemical Feed Pump
- Relief Valve
- Pressure Controller
- Pressure Gauge
- Pulsation Dampener
- Suction Stabilizer
- Prime Mover



4K-200 TRIPLEX

Aluminum Bronze Fluid End

The Kobe K-100 Aluminum Bronze Fluid End is built for long life and low cost operation over a wide range of pressures and flow rates. The Fluid End is rated at a maximum operating pressure of 5000 psi Applications include both fresh and produced waters, oils, sand, corrosive, and numerous other fluids.

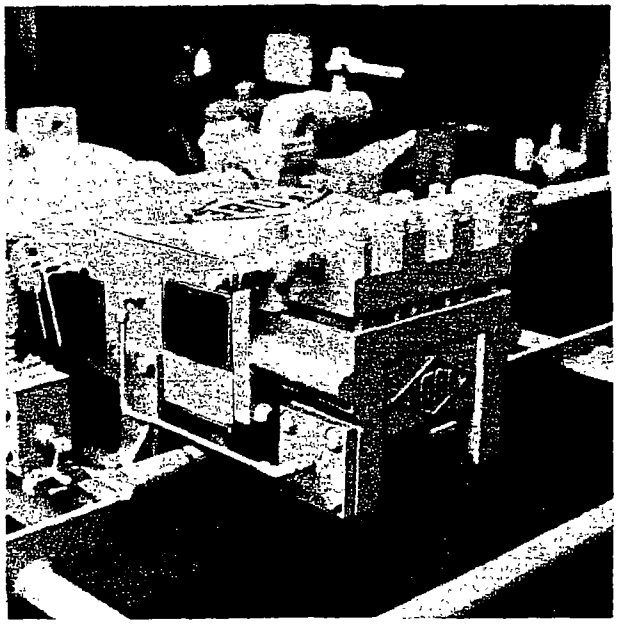
The Aluminum Bronze Fluid End consists of two main parts, the Cylinder Block and the Discharge Manifold This unique design provides for easy disassembly and excellent accessibility for routine maintenance.

Fluid End accessibility is further enhanced by the larger 2 inch per foot tapered design suction valves. This allows very large valve porting with resulting low suction velocities preventing cavitation This also provides low net positive suction head requirements (NPSHR) which meet API 674 Specifications. The Intake Valves are easily removed for maintenance or replacement.

The Flanged type discharge valving has two o-rings on each side of the Flange to seal the Discharge Manifold and Cylinder Block. The seating diameters are different, making it impossible to install the Discharge Valve incorrectly The Cartridge Valve design can be removed easily from the Fluid End.

Three different types of Fluid End Valving are available:

- Disc type
- Ball type
- Abrasion resistant wing-guided type



ALUMINUM BRONZE FLUID END

HYDRAULIC PUMPS

TRICO INDUSTRIES, INC.

Triplex Pumps Specifications

Specifications

	3K-100	4K-200
Rated BHP	100	200
Crankshaft Speed, RPM		
Maximum Rated	450	400
Minimum Recommended	100	100
Maximum Plunger Load	8,000 lb	14,000 lb
Maximum Operating Pressure, PSI		
Monoblock (Aluminum Bronze) Fluid End (For Oil or Water Service)	5,000	—
3 Cylinder Fluid End (For Oil or Water Service)	—	5,000
Monoblock (Steel) Fluid End (For Oil Service)	5,000	5,000
Monoblock (Aluminum Bronze) High Volume Fluid End (For Oil or Water Service)	3,000	—
Triplex Suction Pressure, PSI**		
Maximum	1,000*	1,000*
Recommended†	15-75	15-75
Minimum†	5-50	5-50
Lubrication Oil Capacity, Qts.	14	53
Weight, Lbs.		
Triplex Pump Only	1,675	4,800
Skid Unit	3,200	7,400

* For any plunger size, discharge pressure must be reduced 5 psi for every 10 psi increase in intake pressure over 50 psi

** Inlet system piping to Triplex must consider both piping fluid friction and acceleration head to insure proper suction pressure Consult Hydraulic Institute Standards (Reciprocating Pumps Ratings)

† Triplex suction pressure (NPSHR) dependent upon fluid end type and valving type selected

3K-100 TRIPLEX PUMP								Maximum Pressure			
Plunger Diameter		Displacement/100 RPM			Displacement/450 RPM (Maximum Rated Speed)			3000 PSI High Vol. Fluid End (100 GPM Max. Cap.)		5000 PSI Fluid End (60 GPM Max. Cap.)	
Inches	mm	GPM	B/D	m³/d	GPM	B/D	m³/d	psi	MPa	psi	MPa
3/4	19 0	2 30	79	12.5	10 4	355	56 7			5000	34 5
7/8	22 2	3 12	107	17 0	14 0	481	76 3			5000	34 5
1	25 4	4 08	140	22 2	18 4	630	100 3			5000	34 5
1 1/8	28 6	5 16	177	28 1	23 2	796	126 5			5000	34 5
1 1/4	31 7	6 38	219	34 8	28 7	984	156 4			5000	34 5
1 3/8	34 9	7.72	265	42 1	34 7	1191	189 1			4446	30 7
1 1/2	38 1	9 18	315	50 0	41 3	1416	225 1			3735	25 8
1 5/8	41 3	10 8	369	58 8	48 6	1666	264 9			3174	21 9
1 3/4	44 4	12 5	428	68 1	56 3	1929	306 9			2740	18 9
1 7/8	47 6	14 3	490	77 9	64 4	2206	351 0	2395	16 5		
2	50 8	16 3	559	88 8	73 4	2515	400 1	2102	14 5		
2 1/8	54 0	18 4	631	100 0	82 8	2839	451 3	1863	12 9		
2 1/4	57 1	20 7	710	113 0	93.2	3194	508 0	1655	11 4		
2 3/8	60 3	23 0	789	125 0	103 5	3549	564 1	1490	10 3		
2 1/2	63 5	25 5	874	139 0	115 2	3934	627 9	1339	9 2		

4K-200 TRIPLEX PUMP								Maximum Pressure	
Plunger Diameter		Displacement/100 RPM			Displacement/400 RPM (Maximum Rated Speed)			5000 PSI Fluid End (115 GPM Max. Cap.)	
Inches	mm	GPM	B/D	m³/d	GPM	B/D	m³/d	psi	MPa
1 1/2	38 1	11 5	394	62 7	46 0	1577	251	5000	34 5
1 5/8	41 3	13 5	463	73 6	54 0	1851	294	5000	34 5
1 3/4	44 4	15 6	535	85 0	62 4	2139	340	5000	34 5
1 7/8	47 6	17 9	614	97 6	71 6	2455	390	4309	29 7
2	50 8	20 4	700	111	81 6	2798	444	3781	26 1
2 1/8	54 0	23 0	789	125	92 0	3154	500	3354	23 1
2 1/4	57 1	25 8	885	141	103 2	3538	564	2990	20 6
2 3/8	60 3	28 8	988	157	115 2	3950	628	2678	18 5

Displacements are based on 100% volumetric efficiency

$$BHP = \frac{GPM \times PSI}{1714 \times 90}$$

TRICO INDUSTRIES, INC. ELECTRIC SUBMERSIBLE PUMPS

Trico Submersible Systems

The Trico electric submersible pumping system is composed of five basic items — a heavy-duty, multistage centrifugal pump, 3-phase electric motor, electric power cable, switchboard, and when necessary, an auto-transformer or power transformer Designs are available to be run in 4-1/2" casing through 13-5/8" casing, with capacities ranging from 150 BPD to 30,000 BPD.

Each and every component part is thoroughly inspected before being assembled. All motors are factory wound and tested. Once assembled, each complete unit is then tested to ensure that the pump will provide smooth and trouble-free operation

Pump Section

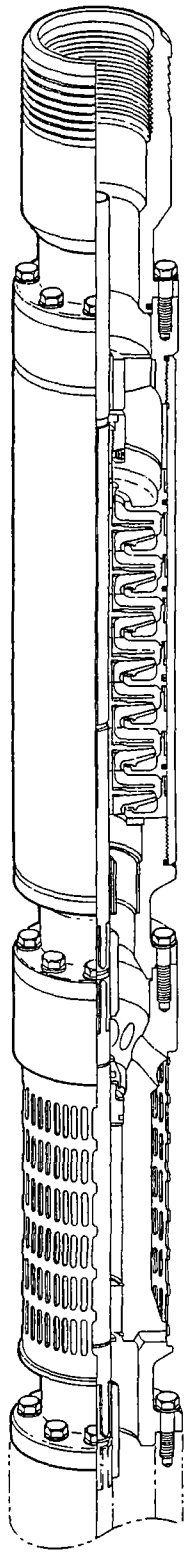
Trico pump sections are of a multistage centrifugal design The equipment is engineered for each well by varying the number of stages and design of the impeller. Each pump design is matched to the individual well conditions The construction materials of this equipment are the best technology has to offer for downhole conditions. Type I Ni-Resist impellers and diffusers or Ryton impellers are the most abrasive resistant material available, and the K-500 Monel shafting allows maximum strength and loading for better run life The addition of rotating rubber stage bushings for sand conditions or special metallurgy for aggressive wells make Trico equipment a plus for tough well conditions

Trico's pump design allows each stage (impeller and diffuser) to carry its own thrust load in the operating range Therefore, the only thrust transmitted to the thrust section is the shaft load from the pressure of the fluid being pumped, again minimizing repair dollars.

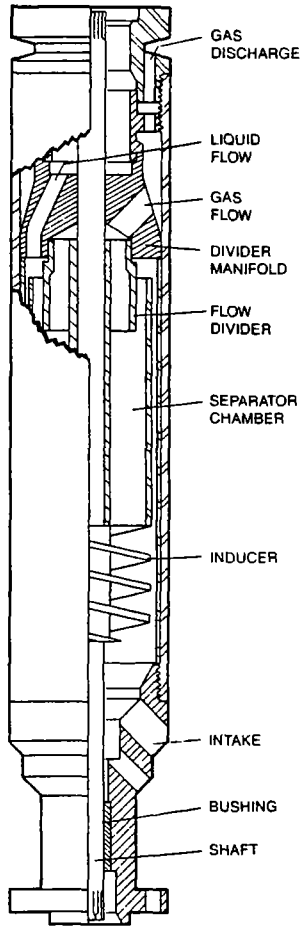
"New" Rotary Gas Separator

Trico's rotary gas separator utilizes a dynamically balanced separator chamber to separate the free gas from the liquid through the action of centrifugal forces The liquid is diverted to the first stage of the pump and the gas is vented to the annular space.

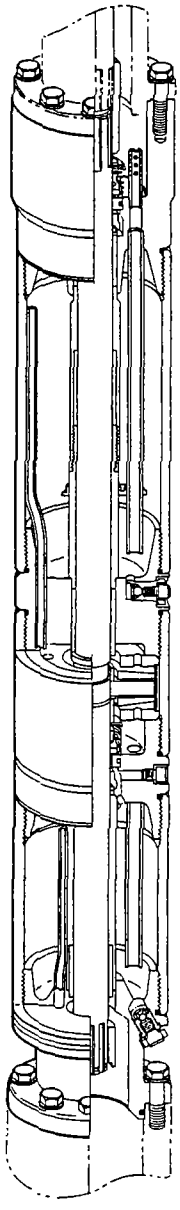
Trico Submersible Systems can now offer the most complete line of electric submersible pumps on the market. By utilizing the Standard Pump product line with the Baker Lift Systems (and Westech lines), we can furnish some of the most efficient pumps and motors in the industry. By combining three product lines, Trico Submersible Systems can furnish adapter kits to fit existing customer equipment.



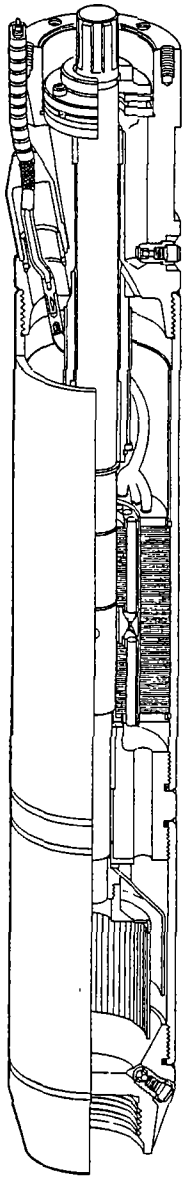
PUMP SECTION



ROTARY GAS SEPARATOR



THRUST/SEAL SECTION



MOTOR

Trico Submersible Systems

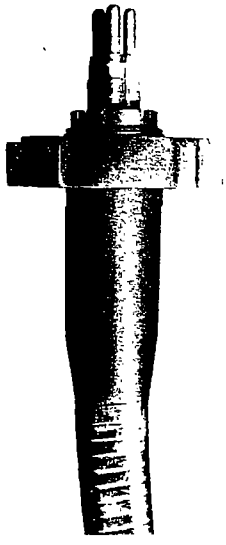
Thrust/Seal Section

Fitting between the motor and intake, the thrust/seal section acts as an internal pressure regulator and protector for the motor, allowing for both heat expansion and pressure change as the unit is operating in the well. It also contains a thrust bearing chamber that accepts the transmitted thrust load from the pump

Trico Submersible Systems offers either a labyrinth type, bag type or integral type thrust/seal section on select models, to better meet customer needs

Motor

Trico's motors are 60 Hz, two pole, 3-phase squirrel cage induction type, and operate at 3450 rpm. All motors are multi-rotor configuration with intermediate bearings for better stability and efficiency Trico uses a double wrap of Kapton on the magnet wire, with a double varnishing technique that makes this motor the best insulated in the submersible industry This relates to the producer in longer run life and decreased operating expense The flat cable used with this motor—available in either bronze or Monel armor—is of a tape-in design. The tape-in flat cable is a more positive connection at the motor head, preventing expensive flat cable and lead burns that often cause start-up problems with a weaker connection These motors are available in a wide range of voltages, allowing easy adaption to the power system and downhole conditions



MOTOR LEAD CABLE

TRICO INDUSTRIES, INC. ELECTRIC SUBMERSIBLE PUMPS

Trico Submersible Systems

Auxiliary Equipment

In addition to its high-quality electric submersible pumps, Trico Submersible Systems can also supply the necessary transformers, cable, switchboards and other related accessories for a complete installation.

Power Cable

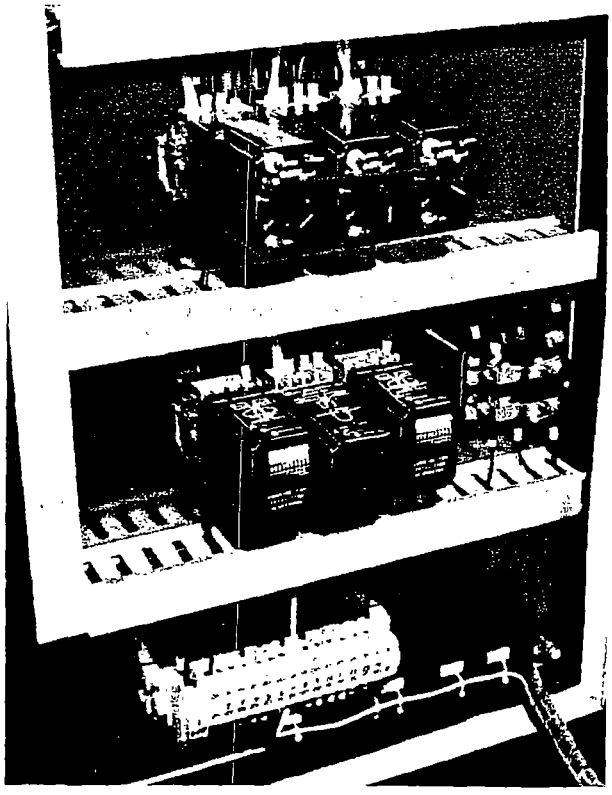
Cable is available in round or flat configurations with operating characteristics that cover the spectrum from low temperature water wells to high temperature "gassy" oil wells

Switchboard and Protector

Trico's switchboard and over & underload protector is the simplest, most cost-effective unit in the industry today The overload protector is an economical solid-state, field replaceable device that allows the operator to determine the cause of shutdown and return the unit to operation in minutes All switchboards are in NEMA-type enclosures. Recording ammeters and junction boxes are also available.

Transformers

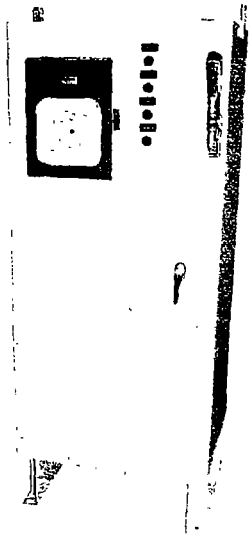
Single-phase multi-tap or three-phase auto transformers are available These oil-immersed, self-cooled units are designed to convert primary line voltage to motor voltage requirements In addition to the auxiliary equipment described above, Trico can also supply check valves and bleeder valves, cable guards, Flakeline and Monel coatings, and Hercules tubing heads



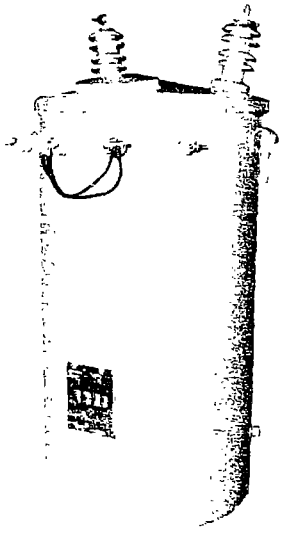
OVER & UNDERLOAD PROTECTOR (SWITCHBOARD)

ROUND CABLE

FLAT CABLE



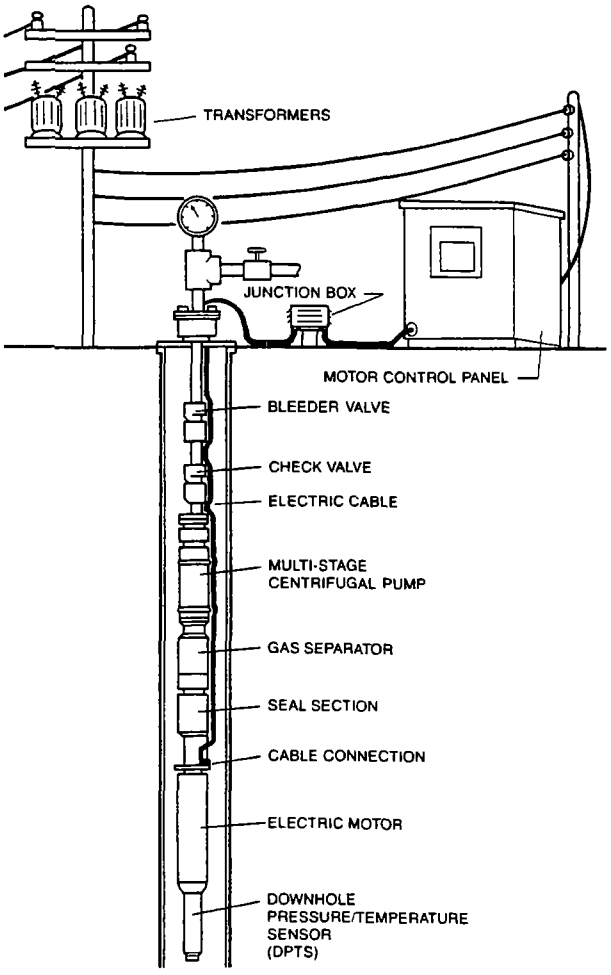
SWITCHBOARD



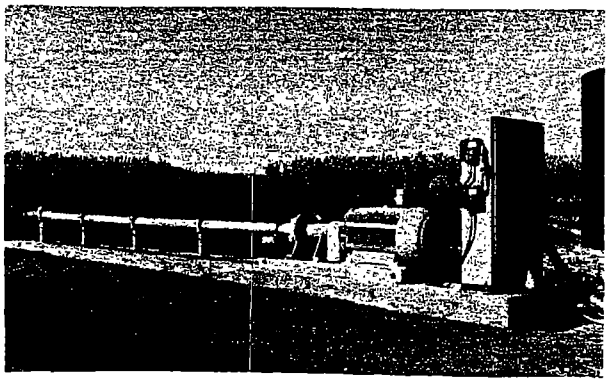
TRANSFORMER

ELECTRIC SUBMERSIBLE PUMPS

TRICO INDUSTRIES, INC.



TYPICAL ELECTRIC SUBMERSIBLE PUMPING SYSTEM WITH DOWNHOLE PRESSURE/TEMPERATURE SENSOR



HORIZONTAL PUMPING SYSTEM

Trico Submersible Systems

Downhole Pressure/Temperature Sensor

The Trico Downhole Pressure/Temperature Sensor (DPTS) has the capability to accurately read both downhole pressures and temperature and display the data digitally at the surface on a LCD display as well as a hard copy printout. When connected to a surface interface module, the DPTS can be used to control a variable speed drive (VSD) so that specific bottom hole pressures are maintained, all without any additional cable splices, instrument wire or additional cable connections downhole

Trico's DPTS was designed to supply a maximum amount of features in a basic unit The downhole sensor itself was specially designed for long life under hostile downhole conditions, incorporating rugged switching relays, heavy duty RTD's and filtering and voltage protections devices.

The DPTS has a built-in calibration circuit for more accurate measurements and does not have to be re-calibrated as the power cable insulation ages and deteriorates, as other models do The downhole unit can be de-latched from the circuit to allow megging of the motor and power cable

Also, included is a real time clock which along with the dot matrix printer allows printing of a permanent record of pressure and temperature data, with optional time intervals between readings from 30 seconds to 1 hour

Horizontal Pumping System

An alternative to positive displacement pumps

The Trico Horizontal Pumping System is a high volume, high pressure surface pumping system that can be utilized in numerous oil field and industrial applications. Some of the more common uses are saltwater injection, pipeline booster pumps, transfer pumps and power fluid pumps for operation of downhole hydraulic pumps and industrial hydraulic systems

Lower initial investment in installation time and money

The design of the Trico Horizontal Pumping System incorporates components that are skid mounted at the factory for quick and easy set up at location Minimum site preparation and lower initial cost make horizontals very attractive to the operator trying to maximize production at the least cost.

Less maintenance

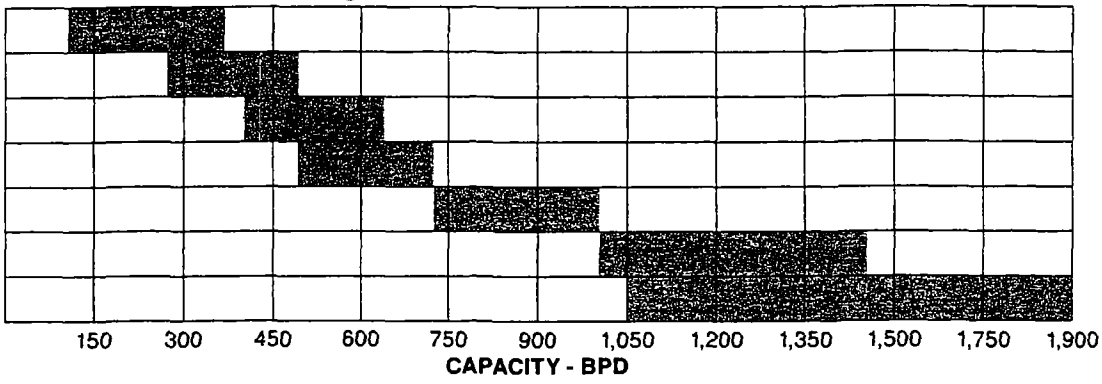
The Horizontal Pumping System is designed to operate with minimum maintenance no packing, v-belts or gear reducers; no suction and discharge valves; no pulsating pressure, and no daily lubricating requirements If the pump must be repaired, downtime is kept to a minimum with back-up inventory and 24 hour service.

Our technologically advanced positive alignment procedure produces a vibration free system capable of pumping rates from 15 GPM to 1300 GPM with single pumps Additional flow rates can be achieved with parallel systems

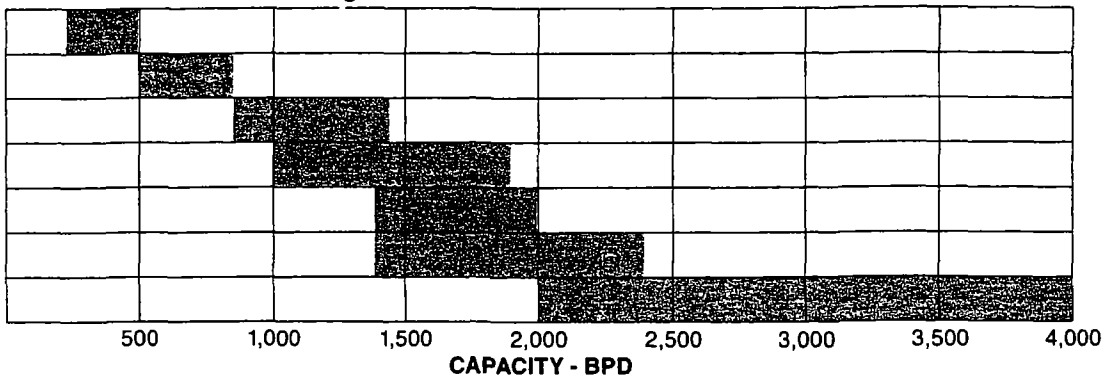
TRICO INDUSTRIES, INC. ELECTRIC SUBMERSIBLE PUMPS

Electric Submersible Pumps Capacity Chart

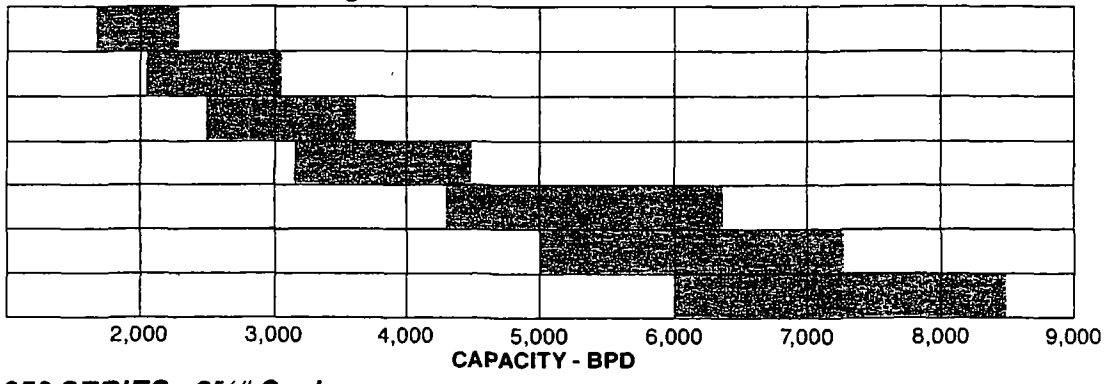
338 SERIES - 4½" Casing



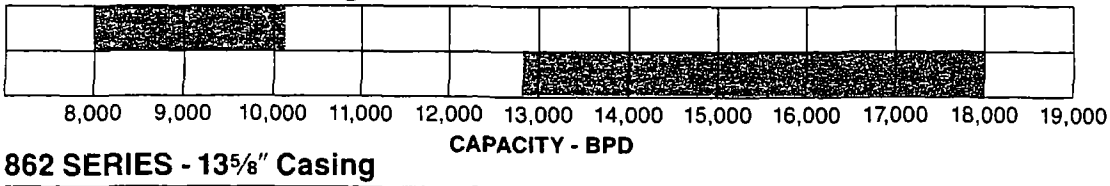
400 SERIES - 5½" Casing



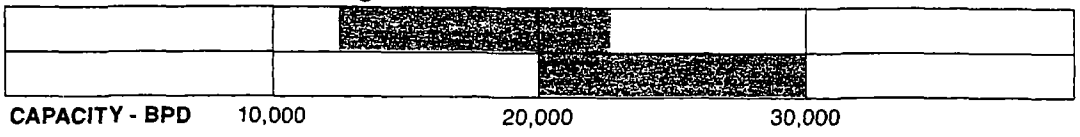
540 SERIES - 6⅝" Casing



650 SERIES - 8⅝" Casing



862 SERIES - 13⅝" Casing



ELECTRIC SUBMERSIBLE PUMPS

TRICO INDUSTRIES, INC.

Electric Motor Tables—60 Hz.

375 Series (3.75" OD)

HP	Volts	AMP
7.5	410	14
10.5	390	20.5
15	315	35.5
	400	28
19.5	387	38
	630	23
22 5	440	38.5
	730	23
25.5	370	51
	630	30

Tandem Motors

30	630	35 5
39	774	38
45	880	38 5
51	740	51
58.5	1161	38
67.5	1320	38 5
76 5	1110	51
90	1320	51.5
102	1480	51
112 5	1650	51 5
127 5	1850	51

738 Series (7.38" OD)

HP	Volts	AMP
200	2245	59
220	1045	142
240	2300	69
260	2210	78
340	2140	105

Tandem Motors

400	2300	115
440	2050	142
480	2230	143
520	2420	143
600	3450	115
680	3170	142
720	3345	143

456 Series (4.56" OD)

HP	Volts	AMP
10	435	15
15	435	23
20	450	28.5
25	410	39
	690	22
30	425	44.5
	750	25.5
35	675	33
	785	28
40	770	33
	880	29
50	675	47
	815	39
	955	33
	1120	28
60	640	59
	810	47
	970	39
	1075	35
70	540	82 5
	750	60
	945	47
	1135	39
80	635	80
	860	60
	1085	46
	1250	40
90	710	81
	1135	50
	1460	39
100	1355	46
	2205	28.5
110	1190	60
	2380	30
120	1340	47
	2415	31
150	2365	40

Tandem Motors

140	1080	82 5
	1500	60
	2270	39
160	2170	46
180	2270	50
200	2710	46
220	2380	60
240	2150	70
	2410	62

540 Series (5.43" OD)

HP	Volts	AMP
20	440	29
	755	17
30	435	45
	710	28
	960	21
40	435	60
	730	36
	1325	20
50	450	72
	725	45
	1375	22
60	425	91
	870	45
	1320	30
70	755	60
	1015	45
80	865	60
	1160	45
100	835	76
	1070	60
	2170	29
120	855	88
	1030	73
	2165	33
130	925	88
	1125	67
150	1075	87
	2105	44
160	825	122
	1115	88 5
	2185	46
180	1275	89
	1945	59
200	1100	115
	2140	54
225	1135	127
	2235	64
240	2205	63
280	2165	75
315	2415	75

Tandem Motors

240	2060	73
260	2250	67
300	2150	87
320	2230	88 5
360	2550	89
400	2200	115
450	2270	127
480	2475	122
540	2835	120
600	3300	115

TRICO INDUSTRIES, INC.

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TRICO INDUSTRIES, INC.

Presentation by
William T. Box, President and Chief Executive Officer,
to the
New York Society of Security Analysts
August 18, 1980

We are Trico Industries - our name came from Tri-County Gas Company, organized in California in the early 1930's. Trico was listed on the Pacific Stock Exchange in 1934 as Trico Oil & Gas Company. In November of 1975, we came to New York and listed on the American Exchange, and since October of 1978 we have been on the big board.

We want to thank the New York Society of Security Analysts for inviting us here today. We hope that we can make this period informative and interesting. We have copies of this speech available at the conclusion of today's luncheon at the exit doors.

Besides myself we have here today Walter Losk, Chairman of the Board, and Charles Moody, Vice President and Chief Financial Officer.

For many reasons, no longer important, during the period 1969-1972, the management of Trico was changed to the current management. Trico became a manufacturing company whose principal purpose was to manufacture equipment for the producing segment of the oil industry.

During the early 70's, most of our efforts were directed toward the expansion of the oil well sucker rod pump business. The Monarch Division is the sucker rod pump company of Trico Industries. Monarch is the second largest manufacturer of sucker rod pumps in the world. Over 60% of Trico's revenues result from the sale of pumps, pump repair charges and the sale of pump accessories and servicing tools.

Our Superior Division, which was acquired in 1974, is involved in the processing and storage of oil for delivery to the pipelines.

Our Columbian Division, located in Kansas City and acquired in 1977, principally manufactures bolted storage tanks for the storage of oil, water and dry bulk materials. Its tanks are sold to the oil industry through the Monarch and Superior Divisions.

Ninety percent of Trico's sales are to the oil producing companies and 90% of the sales are to the domestic producer for use in the United States.

Most publicly held oil service companies derive their principal revenue from the drilling and well completion segment of our industry with a major concentration offshore. They are involved in the largest part of the oil service business. Trico is different. Trico gains little revenue from offshore production and no revenue from the drilling industry. About 25% of our oil industry revenue comes from new land completions, the other 75% is involved in the servicing and maintenance of existing wells. We're principally in the "oil recovery" business from established wells or fields.

While most of the oil produced in the world flows through tubing to the surface and the flow is controlled by chokes and other devices, 90% of the world's producing wells require some type of pump. As shown in Figure 1, 95% of the pumps used are the sucker rod pumps that we manufacture.

In general terms, rod pumps are used when depths are shallower than 8,000 feet and production is less than 500 barrels per day. Deeper walls require hydraulic pumps, larger wells require electric submersible pumps.

Figure 2 helps explain the business we're in and the use of some of our products. This is a schematic of a sucker rod pumping installation. The red items are manufactured by Trico, others make and sell those items in black.

There are four principal components in a pumping unit installation. They are: the pumping unit (Lufkin is the major supplier.), the sucker rods (Norris Division of Dover Corporation is the major supplier.), the tubing is furnished by the steel companies and is common to all producing wells, and last is the pump and its accessories which are our principal business.

The market for sucker rod pumps and accessories is $200 million. The market for the sucker rods is also $200 million. The pumping unit market is approximately $300 million. Trico has decided to enter the pumping unit market and will begin to deliver 8-10 units per month by the end of this year. We believe that in the next 5 years we will secure 7-10% of this pumping unit market in spite of the growth we contemplate.

Let me tell you why we believe the "oil recovery" equipment business is the business to be in.

Currently our domestic oil production is about 8.7 million barrels per day and the production being added has arrested the declining production rate. We've attained this balance with about 2,900 rigs running, drilling at the rate of 66,000 wells per year. When we were drilling 50,000 wells per year and 2,200 rigs were running, as was the condition in 1979, we were losing domestic production capacity by 300,000 barrels per day, per year.

Figure 3 shows that oil well completions have increased dramatically since June of 1979 when pricing constraints were relaxed.

Where have these new wells come from? Today the independent is drilling oil wells as fast as it is possible to get a rig to drill and the equipment to complete a well. With the increase in the price of oil, he is fulfilling his pent-up desire to drill wells that in the past were not economical. We expect that this rapid growth in activity will taper off some in the next 2 years.

Figure 4 depicts how we see the market. The next major development will be "infill" drilling. The only effective methods for large scale improvement of "oil recovery" are infill drilling and the application of heat in viscous oil reservoirs. Infill drilling always means infill drilling combined with waterflooding to maintain formation pressures. Infill drilling, if done properly, can be used to recover at least as much oil as the U.S. already has produced.

Let me give you an example of a typical field production program in West Texas. As shown in Figure 5, a field operating on a 40 acre five-spot waterflood has been converted to a 20-acre five-spot waterflood by drilling 24 new wells, all of which would be new oil well completions on 20-acre spacing. To achieve this pattern, the original 12 oil producers would be converted to water injectors, resulting in a net addition of 12 new oil well completions or one net completion for every two wells drilled.

Current data shows the recovery efficiency of waterflooding on 40 acre spacing is highly inefficient. Efficiency can be substantially improved by going to 20-acre spacing. Even closer spacing is desirable in areas where the producing zones are thick or the oil is heavy. Zones in California using steam to flood have well spacings as low as 2½ acres per well.

From my earlier comment, the current rate of 66,000 wells per year will sustain our productivity at about 8.7 million barrels per day. We believe it will take approximately 3,600 rigs and 82,000 wells per year to increase our domestic productivity by an additional 300,000 barrels per day. We believe that with infill drilling this higher rate of drilling can be sustained for many years.

My figures are based on no planned increase in the drilling of gas wells because of a current surplus of gas, yet gas as a source of energy may surpass in the future both coal and oil.

Ninety-five percent of the oil wells drilled in the U.S. require a pump from the very beginning of their life, and of course 95% of the pump installations use pumps that Trico makes.

Another criteria we believe is important in evaluating Trico is the growth rate of fluids produced. Figure 6 shows the growth in fluids pumped in California. This growth is typical of most fields in the U.S. Additional fluids to be pumped require, in addition to larger pumps, more storage and process equipment to handle the increased fluid production. Each barrel of oil produced in the future will produce with it an ever-increasing volume of water.

We believe that we need to double our manufacturing capacity in the next 3-5 years to keep up with our share of the market. We urge our competitors to expand too so as to avoid critical shortages and government intervention.

We see Trico's growth being limited by the availability of other equipment, such as sucker rods, pumping units, tanks, process equipment, as well as drilling rigs and the ever-increasing problem of government intervention and delays for permits, reports, etc. It is for this reason that we are pushing ahead with the growth of our tank and process equipment business and entering into the pumping unit market. We also have potential in the sucker rod business, but this product is truly the province of the steel companies, even though the largest manufacturer today is not a steel company.

The efforts and costs required to achieve a substantial amount of additional oil in the next 20 years would be enormous, but the dollars would be expended in the U.S. Many of the jobs lost in other industries can be added profitably in the "oil recovery" business.

What about the role of enhanced oil recovery? These are tertiary flooding processes designed to recover oil unobtainable by any amount of waterflooding. At the present time only two processes are successful - they are carbon dioxide and steam-flooding. There are other types of projects subsidized by the government, but to date they do not contribute significantly to our reserves nor daily production.

Steamflooding has revitalized the oil business in California. We are a leader in several aspects of this activity. Just recently we completed an installation for the Shell Oil Company in Coalinga, California (Figure 7). Coalinga is a heavy oil field in the San Joaquin Valley about 40 miles north of the Belridge field, purchased late last year by Shell for $3.5 billion. Coalinga is a larger field than Belridge. It was discovered in 1898 and has been producing since then. It is owned by several major oil companies.

We furnished the tanks from our Columbian Division, designed and manufactured the processing equipment at our Superior Division and installed most of the equipment with Superior's construction personnel. Three hundred wells are being drilled surrounding this installation; pumps will be installed and steam will be injected. The oil produced will be separated from the water and stored for ultimate delivery into a pipeline. The separated water will be treated for reuse in the steam generators. In addition to this installation, Shell has three more such plants in process in the San Joaquin Valley.

The Coalinga installation is typical of operations that can be expected in the development of the heavy crude industry in California. We believe that, because of our close association with the users and our distribution network and our service crews, we are particularly well suited to manufacture and sell a good percentage of the production equipment used to develop the heavy production in California and throughout the rest of the world.

The bolted tanks from Columbian have a factory-applied epoxy coating, baked on to make the tanks corrosion resistant (Figure 8). It is a coating that is applied by only one other bolted tank manufacturer.

Superior's construction personnel install new storage and process equipment in California and Illinois from 10 service locations. This department also does field repair and maintenance work for all companies that do not have their own crews. We believe there are many expansion opportunities for Trico in the oilfield maintenance business.

Most of Trico's revenue comes not from new completions, but from sales in the after-market. Except for the pump companies and the service contractors, revenues to the oilfield equipment industry slow to a trickle after a well is completed. For Trico this is just the beginning. Like buying an annuity, each oil completion means continuing income to Trico for the life of the well. We have 70 well-established service locations in the U.S. and Canada to provide continuing service in the industry.

Slightly more than 10% of all Trico's sales are shipped overseas with 75% of our exports going to South America and Mexico. We do not include Canada in our export figures. Canada is a significant source of revenue for Trico. We sell products at a profit to our Canadian companies and share in the profits of the companies. Canada's growth outpaces the U.S. growth. Trinidad, Venezuela, Argentina, Columbia and Peru are the most attractive foreign markets for us. We expect our overseas sales to remain about 10% of our total volume.

What do we see as the future of Trico? We see Trico well situated in this "oil recovery" business and we should be able to grow 20-30% per year for the next several years. Our growth should be better in 1981 and 1982 as our present sales growth has been reduced by the de-emphasis of product lines that do not fit our objectives.

We expect to raise the capital we need from internal profits and borrowings. We keep our total debt to less than 70% of our net worth. We increase our equity through stock purchase plans, ESOP and stock options. We would like to go to the marketplace for more equity, but the costs are too high and our company is not yet large enough to handle the dilution involved in an offering of reasonable size.

We believe we can do a better job of improving our earnings in the next 3 years than we've done in the past three. We've set up rules and objectives to better manage our costs. With our growth in size from a very small company, we needed to change many of our controls and procedure. We are now seeing the results of these programs and our profit-to-sales ratio is improving. We expect it to continue to improve.

We continue to actively seek acquisitions, although quality companies in our industry are very expensive and difficult to acquire. We have no intention of diversifying out of our industry.

In closing we'd like to thank those responsible for this program for allowing us to talk to you about Trico and the markets we're in. We hope we've contributed some to your better understanding of the oil service and equipment business and in particular the "oil recovery" business in which we are an important factor.

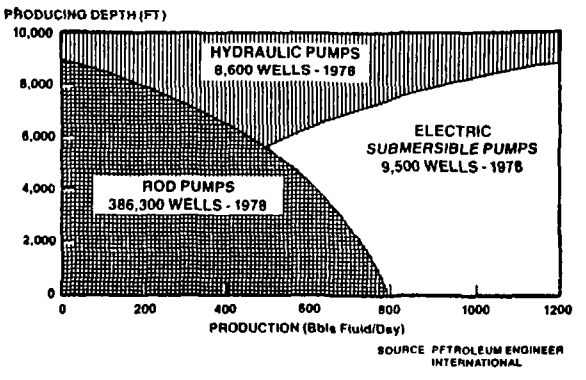


FIG 1 SUBSURFACE PUMPS APPLICATIONS

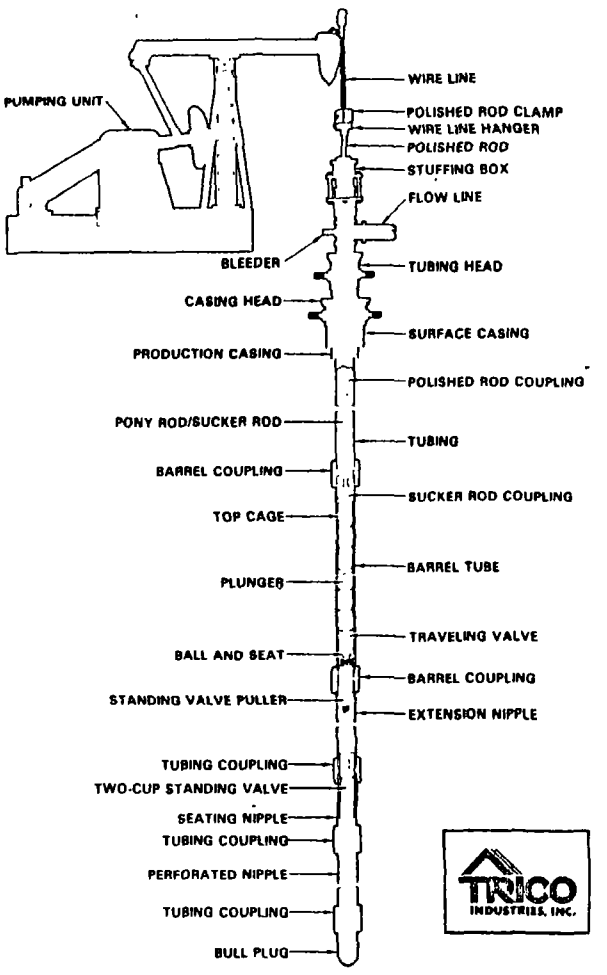


FIG. 2. OIL WELL SUCKER ROD PUMP INSTALLATION

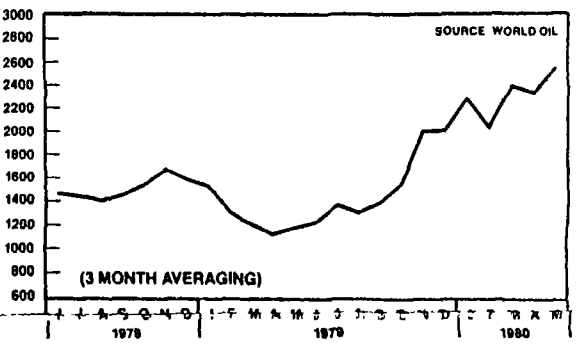


FIG 3 OIL WELL COMPLETIONS

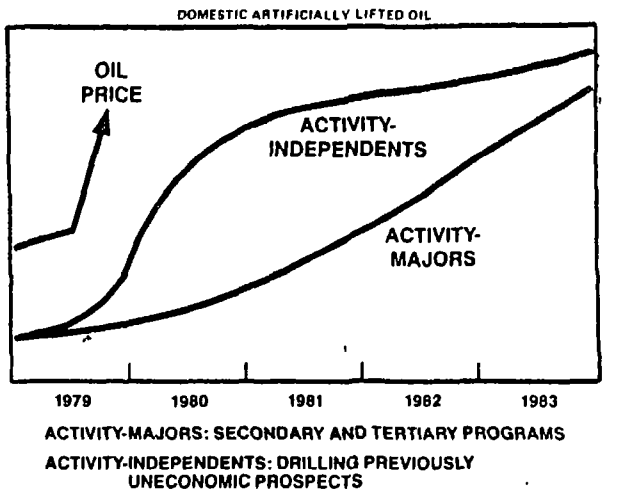
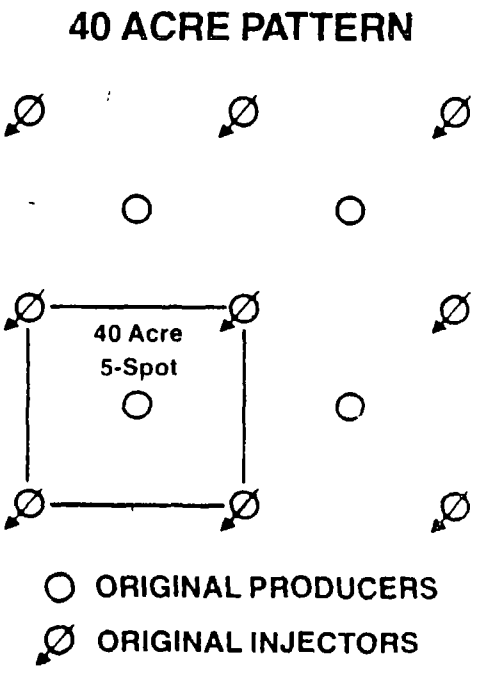


FIG 4 PRODUCTION ACTIVITY



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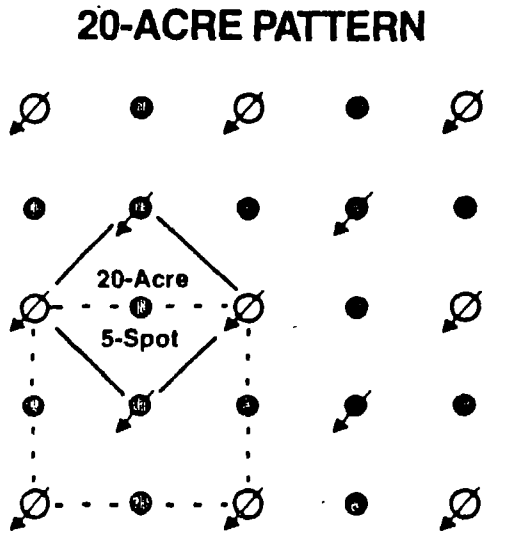

FIG. 5. RESULTS OF INFILL DRILLING PROGRAM

FIG 5 RESULTS OF INFILL DRILLING PROGRAM

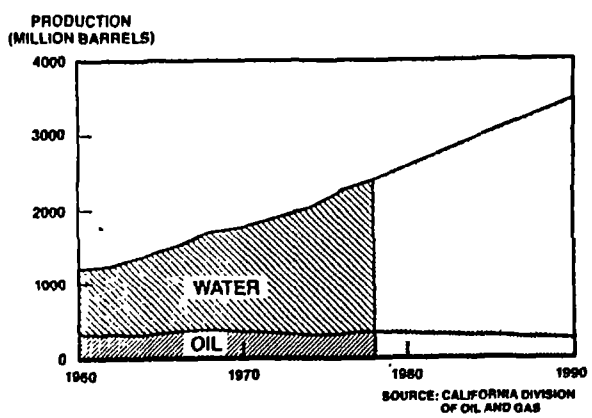

FIG. 6. CALIFORNIA PRODUCTION

ACME UNITED CORPORATION

John Gutman Investments Corporation
15 Lewis Street, Hartford, Connecticut

(ACU) - ASE

(Adjusted for the 25% stock dividend to be paid Sept. 10, 1980)

Investment Opinion: The common stock of Acme United Corporation is recommended for purchase for both near and longer term appreciation.

Recent Price: (8/12/80):		14¾		52 Week Price Range:		14 3/4-8 3/8	
No. of Shares:		2,375,000		Current Dividend Rate:		$0 30	
Share Earnings: (+)	1977	$0.59		P/E Ratio	(a)	1977	10.4 X
(Year ends 12/31)	1978	0.75			(a)	1978	13.8 X
	1979	0.89			(a)	1979	13.5 X
	1980	1.08E			(b)	1980E	13.2 X
	1981	1.33E			(b)	1981E	10 7 X

(+) Adjusted for a 25% stock dividend in 1980 and a 33 1/3% stock dividend in 1978.
(a) Average annual price/earnings ratio based on reported earnings and actual prices for the year.
(b) Based on recent price of the common and estimated per share earnings for the year.

With the medical products sales back on the right track, the common stock of Acme United is recommended for purchase to investors seeking both near and longer term appreciation.

The Company is a leading producer of metal disposable surgical instruments, sterile procedure trays, germicidal products and wound-care packs for hospitals as well as the largest producer of household shears, scissors, wooden rulers and yardsticks in North America.

The characteristics of the products and the world-wide nature of operations have resulted in stable results during previous recessions. The growing proportion of high growth medical products is resulting in Acme taking on more and more of their growth characteristics. The current recession is only slowing the overall growth of the company.

Recently the company declared a 25% stock dividend and increased its quarterly cash dividend rate to 7 ½c a share on the increased shares.

Sales and earnings both up 18%, reached record highs in the first half of 1980. Sales of medical products were up 40% while consumer products rose 6%. Medical products now account for around 40% of total company sales, up from 34% a year earlier, and are expected to run well over 45% for the last half of the year. Shipments of OP-SITE (R) and AIRSTRIP (R), the new surgical dressings, in the second quarter were almost double the first quarter's level and more than four times the level of a year earlier.

With the growth rate for medical products still accelerating we look for a very strong second half, bringing the total gain for sales and earnings for all of 1980 to around the 20% area. Further rapid profitable growth is expected for 1981.

Earnings Per Common Share (+)

Quarter	1981 Prel	1980 Est.	1979	1978	1977
March	$0.25-0 30	$ 0.22	$0.18	$0.14	$0.10
June	0.30-0.35	0.29	0.25	0.22	0.18
September		0.27-0.30	0.20	0.18	0.15
December		0.27-0.30	0.27	0.19	0.17
Year	$1.25-1.40	$1 05-1.10	$0.89	$0.75	$0.59
% Change	+23%	+21%	+19%	+27%	+48%

(+) Adjusted for 25% stock dividend in 1980, and a 33 1/3% Stock Dividend in 1978.

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dustry. The dynamics of demand for each of these product groups is very different. We believe it is difficult to construct a scenario in which demand for all three could decline sharply at the same time. This is why we view TTK's multimarket strategy favorably.

Aerospace/defense: Headed by Space Ordnance Systems (SOS), this group produces: 1) countermeasure flares to divert heat-seeking, guided missiles away from airplane; 2) emergency escape systems to eject crew from military aircraft; 3) ultra-reliant devices for the space shuttle program; and, 4) high volume products such as pyrotechnic igniters and initiators for guided missiles.

Eastern Rotor-Craft (ERC) produces an extensive line of helicopter hooks and equipment designed to carry cargo externally. ERC also makes chain and web cargo tie down cargo-securing hardware for commercial and military land, sea and air transportation systems. This division's backlog now is almost $6 million.

The Belfort Instrument subsidiary is a leading manufacturer of meteorological instruments. The major customer is the U.S. weather service.

TTK seeks to participate in programs where there is ongoing business. Its ordnance products are replaced approximately every five years, even if not used, as a safety feature. Thus, "spares" business tends to exceed products sold for new aircraft. There is strong, but limited competition in countermeasure hardware. Total industry production capacity is far less than a mobilized defense system would require. Consequently, because we anticipate a real increase in orders for aircraft that will need equipment like that TTK produces, we are optimistic regarding SOS's future.

Aerospace/defense revenues have a 20% growth rate for 1976-80, while operating profits grew at an 18% rate. This 1976-80 period was marked by a winding down of military equipment spending. We anticipate higher sales and earnings growth rates if talk about stepped up military spending becomes a reality. Already, we note accelerated programs at Sikorsky and Bell helicopter stimulating additional orders for ERC.

Textile-related: TTK is a manufacturer of capital goods. Through its subsidiaries, Gessner Company and Lloyd Manufacturing, it produces a wide range of machines used to process the full range of fibers and textiles. Demand for these machines is related to replacement and shifting fashion, not to sales of particular textile products. Sales of this group in the 1976-80 period grew at a 15% annual rate (and just about doubled between 1977 and 1978), while operating profit grew at a 16.5% rate. TTK's textile machinery group has demonstrated a quick response time to changing fashions. Major modifications have been made available to customers almost as soon as designers are finalizing their sketches. While investor attention has been focused on TTK's aerospace activities which do have strong growth potential, we believe the positive contributions of other product lines deserve greater recognition.

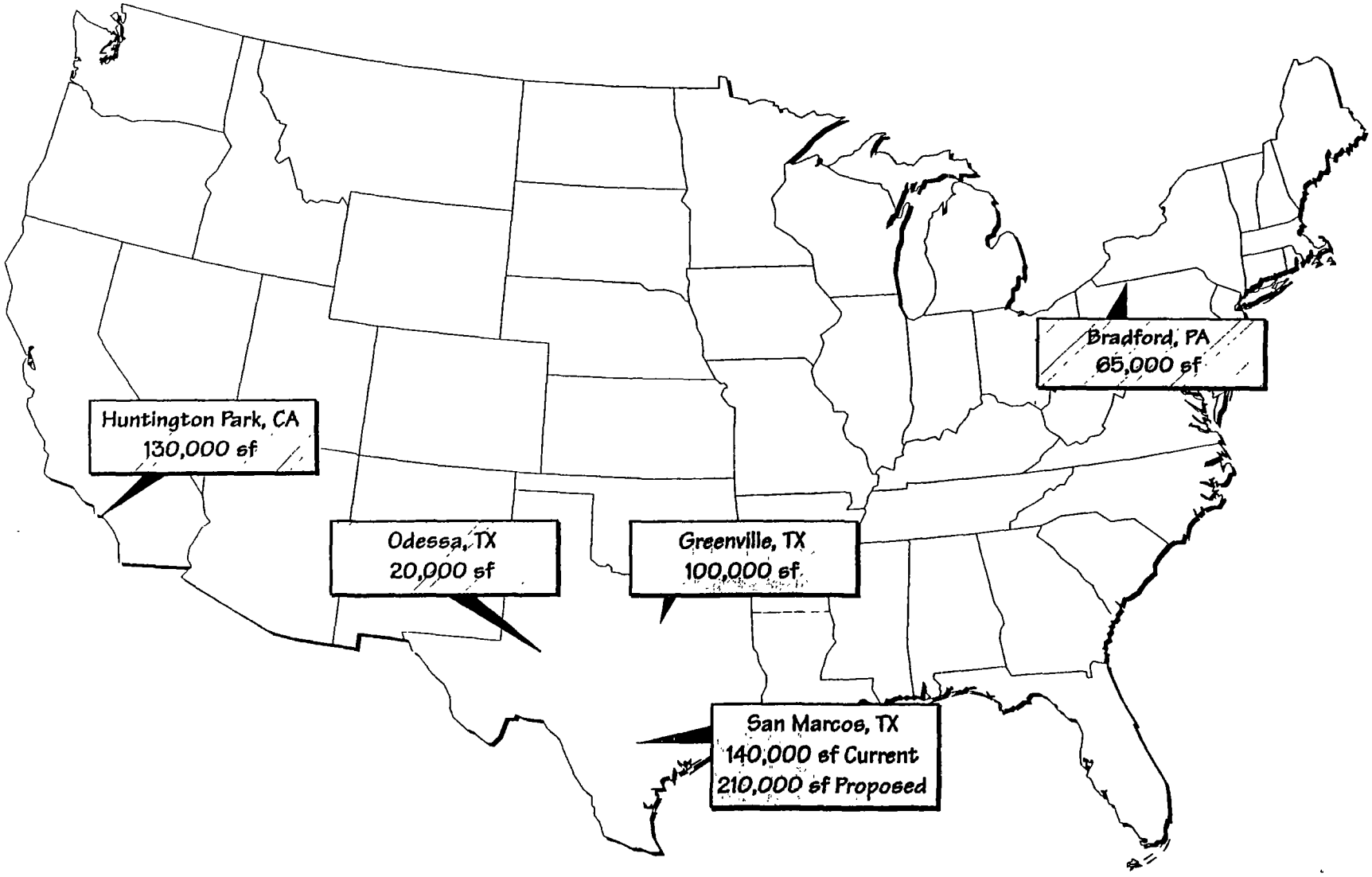
Conclusion: Excluding the effects of future acquisitions, we believe TTK should be able to continue above-average earnings growth based on its successful multimarket diversification. Expanded defense spending programs hold out potential for a much higher rate of earnings growth beginning with the October 1981 federal budget. As a multimarket company able to grow at a rate better than that of industrial companies, TTK is a potential candidate for upward multiple revision on its earnings growth. With a major role as a defense contractor, TTK also has the potential for benefitting from renewed interest in the expected improved outlook for this group.

TABLE I(*)
($ in millions, except per share data)

	1976	1977	1978	1979	1980	CR (4)	1981E
Aerospace/defense	$10.5	$14.5	$15.5	$15.4	$21.7	20.0%	$30-31

PACCAR 00504

Consolidated Trico Manufacturing



PRELIMINARY ASSESSMENT REPORT
TRICO INDUSTRIES, INC.
(EPA ID NO. CAD981450828)

Prepared for:

U.S. Environmental Protection Agency
Region IX
75 Hawthorne Street
San Francisco, CA 94105

EPA Contract Number 68-W9-0046
Document Control Number 04900-003-024-0003-AAAJ

December 16, 1992

Submitted to:	Carolyn J. Douglas EPA Work Assignment Manager	December 16, 1992 Date
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Reviewed By:	Joseph M. Demmler Joseph M. Demmler PA Manager	December 16, 1992 Date
Approved By:	Paul V. Sundberg Paul V. Sundberg Quality Assurance	December 16, 1992 Date

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PACCAR 00507

Angeles County, but the mailing address is in Torrance[2]. The site location is shown on Figure 1. Land use within one mile of the site is industrial, commercial and residential.[2] Directly north of the site is Amoco Chemical and to the east are railroad tracks, warehouses and the Del Amo NPL site. To the south is Redman Equipment and Manufacturing and to the west is Mighty Enterprises and a lumber yard. The nearest perennial surface water body is the Dominguez Channel approximately 1.25 miles east. The nearest school is less than one mile northwest of the site.

The approximate elevation of the site is 45 feet above sea level and the site is not located in a flood prone area.[3,5] Normal rainfall in Torrance is 13.57 inches per year.[6] The normal annual temperature is 62.9°F with an annual normal high temperature of 72.7°F and an annual normal low temperature of 53.0°F.[6]

2.2 Site Description[2]

The site is owned by Trico Industries, Inc. and as of October 30, 1992 was inactive. The property consists of three buildings on approximately 2.3 acres. The ground surface between the buildings is paved with asphalt. The site was formerly used for manufacture of oil well completion equipment. In the past, TRICO also owned the adjacent lot to the west which is currently occupied by Mighty Enterprises. Figure 2 presents the general layout of the current site.

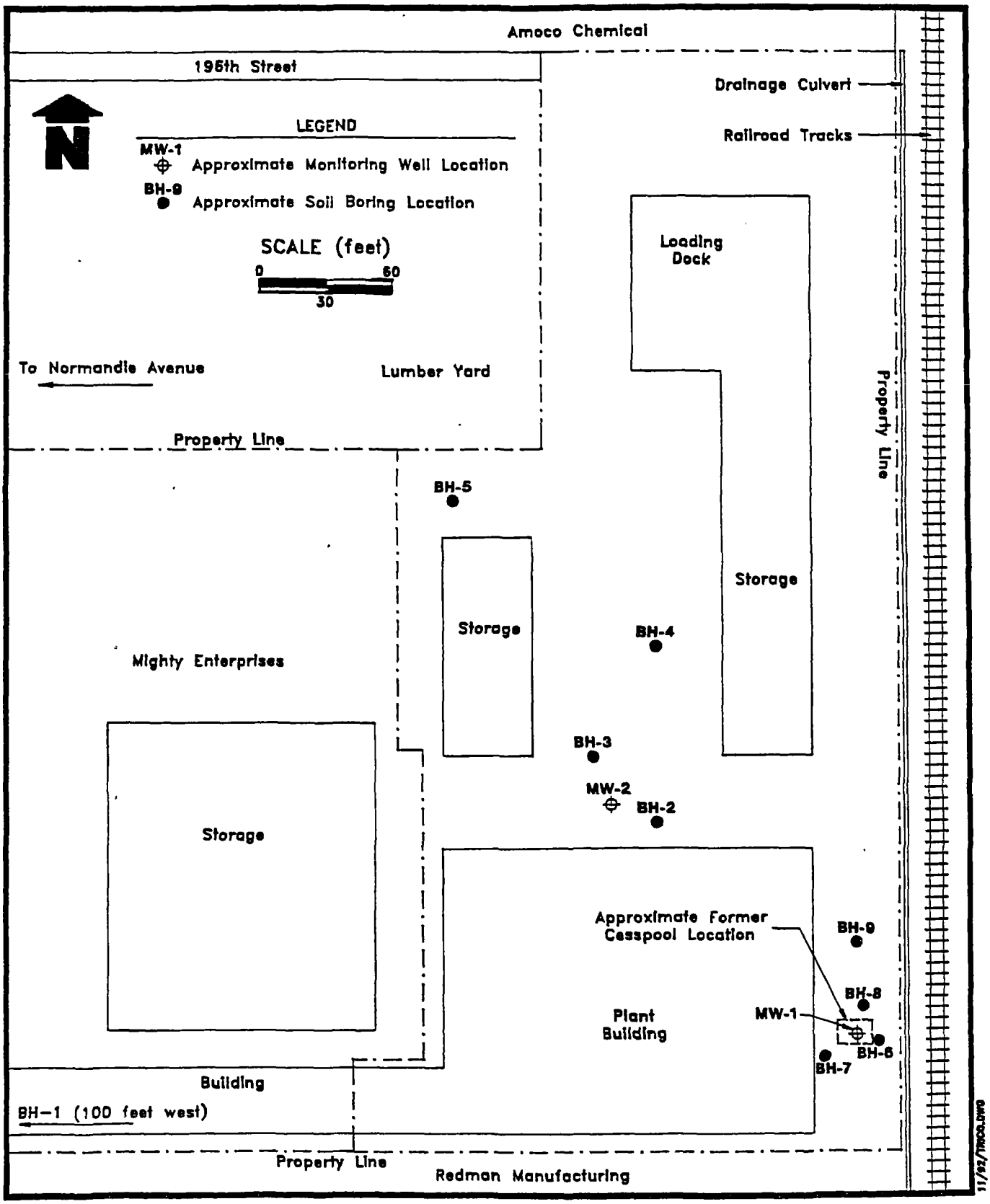
2.3 Operational History[2]

The site was developed in 1952 by B&W Inc. for the production of oil well completion equipment. Use of the land prior to the early 1950's is not known, but review of aerial photographs taken in 1929, 1940, and 1946 indicated that the property was not used prior to 1950.[7] Aerial photographs taken in 1954 show development of the property with one or two buildings.[7] B&W Inc. was purchased by TRICO in 1981 and TRICO was purchased by PACCAR Inc. in 1988. In 1987 or 1988, the property was subdivided and the western portion (at 19706 Normandie Avenue) was sold. The Normandie Avenue parcel is now occupied by Mighty Enterprises with Dynateck America Inc., a division of Mighty Enterprises, using the property to import and store patio furniture. TRICO's past operations on this parcel were reportedly essentially the same as the operations which were observed at the 196th Street facility.[2] The property currently occupied by Mighty Enterprises was not accessed during this assessment.

When the site was active, manufacturing operations were similar to a machine shop and consisted of the forming of parts from sheets or rolls of steel. The steel was heated electrically for many production operations which eliminated the need for chemical cleaning of the steel. Parts were formed using blanks and punch presses, then rolled into the desired shape and assembled by welding or by fittings such as pins. The only wastes produced in the process were scrap metal and welding scrap. Finished products were coated with brown paint in a dip tank. The products were suspended from a conveyor on the ceiling and passed through a dip tank. Reportedly, other than the size of the operation, there have been no significant changes in site activities in the last 40 years.[2]

PACCAR 00508

WESTON



SITE MAP
TRICO INDUSTRIES INC., TORRANCE, CALIFORNIA
FIGURE 2

TABLE 1
Soil Sample Results ($\mu g/Kg$)[8,9]

Sample Location	Toluene	1,2-Dichloroethane	Methylene Chloride	Tetrachloro-ethylene	1,1,1-Trichloro-ethane	1,1,2-Trichloro-ethane	Trichloro-ethylene	TRPH
BH-1-10	ND	–	–	–	–	–	–	ND
BH-1-15	ND	–	–	–	–	–	–	ND
BH-2-5	ND	ND	20	10	8	ND	ND	–
BH-2-10	ND	ND	296	ND	ND	ND	ND	–
BH-3-5	ND	ND	ND	ND	ND	ND	ND	–
BH-3-10	ND	ND	46	ND	ND	ND	ND	–
BH-4-5	89	ND	ND	ND	ND	ND	ND	–
BH-4-10	ND	ND	27	11	ND	ND	ND	–
BH-5-5	128	ND	23	8	20	ND	ND	–
BH-5-10	ND	11	ND	13	ND	ND	ND	–
BH-6-10	–	ND	ND	7	92	ND	ND	ND
BH-6-20	–	ND	ND	16	62	ND	ND	ND
BH-6-40	–	17,600	ND	3,070	ND	ND	ND	14,770
BH-6-60	–	62	117	122	ND	ND	ND	ND
BH-7-55	–	ND	ND	17	711	ND	23	–
BH-7-65	–	ND	ND	41	620	ND	97	–
BH-8-45	–	ND	ND	ND	418	ND	ND	–
BH-8-55	–	ND	ND	ND	226	ND	ND	–
BH-8-65	–	ND	ND	87	930	20	220	–
BH-9-5	–	ND	ND	ND	10	ND	29	–
BH-9-10	–	ND	ND	ND	ND	ND	ND	–
BH-9-20	–	ND	ND	ND	ND	ND	ND	–
BH-9-30	–	ND	ND	ND	ND	ND	ND	–
BH-9-40	–	ND	ND	ND	ND	ND	ND	–
BH-9-50	–	ND	ND	ND	120	ND	24	–
MW-1-65	–	ND	ND	ND	88	8	39	–
MW-2-5	–	ND	ND	ND	ND	ND	ND	–
MW-2-10	–	ND	ND	ND	ND	ND	ND	–
MW-2-20	–	ND	ND	ND	ND	ND	ND	–
MW-2-30	–	ND	ND	ND	ND	ND	ND	–
MW-2-40	–	ND	ND	ND	ND	ND	ND	–
MW-2-50	–	ND	ND	37	ND	ND	80	–
MW-2-60	–	ND	ND	8	ND	ND	36	–
MW-2-70	–	ND	ND	ND	ND	ND	7	–

Notes: ND = Compound not Detected at or above the detection limit.
– = Sample not analyzed for that parameter.

PACCAR 00510

2.4.1 California Regional Water Quality Control Board (RWQCB)

The RWQCB maintains a file on the site which contains two reports by SCS Engineers, TRICO's consultant.[8,9] These reports document soil and groundwater investigations which have occurred onsite. As discussed in the previous section of this report, the results of these investigations have revealed levels of solvents and petroleum-related compounds in soil and groundwater, primarily in the vicinity of the former cesspool. No correspondence or responses by RWQCB were evident in this file.

2.4.2 California Department of Toxic Substances Control (DTSC)

DTSC (formerly Department of Health Services) conducted a drive-by assessment of the property in January 1983 and determined that no further action was necessary.[10] DTSC's file on the site contained notes from this drive-by and a photograph of the site.

2.4.3 South Coast Air Quality Management District (SCAQMD)

SCAQMD has issued permit number M21678 to TRICO for operation of a dip tank used for paint coating.[11] This permit expires August 16, 1993. Reportedly, TRICO's allowable emissions are 27,500 pounds per year of toluene and 18 pounds per year of xylene.[2] WESTON was not able to review SCAQMD's file on TRICO during this assessment, but there are no known violations associated with this permit.

3.0 HAZARD RANKING SYSTEM FACTORS

In accordance with the mandates outlined in CERCLA and SARA, the Hazardous Ranking System (HRS) was developed to accurately assess the relative degree of risk to human health and the environment posed by a potential hazardous waste site in order to determine the site's eligibility for the National Priorities List (NPL). The HRS addresses four exposure pathways representing means by which hazardous substances may pose a threat to human health and/or the environment. The pathways include three migration pathways (groundwater, surface water, and air) and one exposure pathway (soil). For each pathway, three factors are evaluated: likelihood of release of hazardous substances, targets, and waste characteristics.

This section presents a summary of the potential threats associated with each HRS exposure pathway for the TRICO site.

3.1 Sources of Contamination

The most significant source of contamination identified onsite is the former cesspool located on the southeast corner of the property. The cesspool was used to collect sanitary wastewater from the site and its volume is unknown. As discussed previously, soil and groundwater contamination by industrial solvents has been found in the vicinity of the cesspool. SCS Engineers, TRICO's consultant, has estimated that soil contamination does not extend more than 50 feet in any direction around the former cesspool.[9] Assuming contamination is present at 10 to 60 feet below surface in the vicinity of the cesspool, there would be approximately 16,000 cubic yards of potentially contaminated soil.

PACCAR 00511

3.2.2 Groundwater Targets

Groundwater in the vicinity of the site is used to supplement the imported drinking water supply from the State Water Project and the Colorado River. Three water purveyors using groundwater within a four mile radius of the site were identified.[14] These are the City of Torrance, Dominguez Water Corporation, and Southern California Water Company-Southwest. There may also be wells used for industrial purposes within four miles of the site.

The City of Torrance uses three wells within three miles of the site, the closest wells are Wells 04 and 05, approximately 2.2 miles southwest of the site.[13,14] Torrance Well 06 is approximately 2.6 miles northwest of the site. The City of Torrance provides water to approximately 110,000 persons, but only 15 to 20% of the water supply is from groundwater.[13] The wells operate on an interconnected system and none of the wells contributes more than 40% of the total, so the apportioned population served by these wells is 7,333 persons per well for a total of 22,000. Torrance's wells are 800 feet deep and draw water from the base of the Lynwood aquifer and from the Silverado Aquifer.[13]

Dominguez Water Corporation has three wells within four miles of TRICO. Well 79 is located approximately 2.2 miles southeast of the site and is 925 feet deep drawing water from between 480 to 652 feet below ground surface.[15] Wells 32 and 33 are approximately 2.6 miles west of the site and are 560 and 600 feet deep, respectively.[14] Dominguez supplies water to a total of 100,000 people and approximately 30% of their water supply comes from a maximum of 12 groundwater wells.[14,16] Thus, approximately 30,000 persons are served by total of 12 wells resulting in an apportioned population of 2,500 persons per well or a total of 7,500 persons within a four mile radius.

Southern California Water Company has six wells within a four mile radius of the site. Chadron Wells 01 and 02, South Wells 03 and 04, Cerise Well (standby) and 157th Street Well (standby).[14] These wells range from 400 to 500 feet deep. Approximately 20% of Southern California Water Company's supply comes from 15 wells in its Southwest distribution system.[17] The distribution system is interconnected so that water from different areas can be brought in when needed.[17] Therefore, the wells near the site may be used to provide water outside their normal service area.[17] The total population served by Southern California Water Company-Southwest is 177,284 persons.[14] The apportioned population served by the six wells within four miles was calculated to be 2,364 persons per well for a total of 14,184.

3.2.3 Groundwater Conclusions

For the purposes of HRS evaluation, the site was evaluated using an observed release of all compounds detected in groundwater onsite. An observed release is when the chemical analysis of an environmental sample from a site is found to be three or more times above the background concentration and some portion of the release is attributable to the site. It should be noted that based on current available information on site operations, not all of these contaminants can be firmly attributed to the site.

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populations have been conducted in many years.[19] The waterways along the Los Angeles Harbor may be a habitat of the California Least Tern, a Federal Endangered species.[14]

3.3.4 Surface Water Conclusions

The site was evaluated based on its potential to release contaminants to surface water because there is no direct pathway for migration of surface water from the site to surface water. Runoff from the site ponds on the asphalt surface and evaporates or enters the storm sewer which eventually discharges to the Dominguez Channel, the nearest surface water body. There are no drinking water intakes downstream from the site, but the Dominguez Channel may be used for a small amount of recreational fishing.

3.4 Soil Exposure and Air Pathways

This section presents information on the physical conditions at the site, soil and air targets, and conclusions for the soil exposure and air pathways.

3.4.1 Physical Conditions

The site currently contains three buildings and is fenced and paved.[2] Soil sampling has revealed concentrations of industrial solvents and petroleum related compounds in soil at depths ranging from 5 to 60 feet below ground surface.[8,9] The highest concentration of contaminants were found in the vicinity of the former cesspool at a depth of 60 feet.

3.4.2 Soil and Air Targets

The population within one mile of the site is 14,184 persons.[14] There are no workers or residents onsite or within 200 feet of the site.[2] The nearest school is three-fourths of a mile from the site.[3]

3.4.3 Soil Exposure and Air Pathway Conclusions

There is soil contamination below the surface at the site, but the entire site is covered by asphalt and the contamination identified is at a depth ranging from 5 to 60 feet. When in operation, the site had permitted air emissions and there were no indications of any significant violations or fugitive emissions. There are relatively few targets in the soil exposure and air pathways.

4.0 EMERGENCY RESPONSE CONSIDERATIONS

The National Contingency Plan [40 CFR 300.15 (b)(2)] authorizes EPA to consider emergency response actions at those sites which pose an imminent threat to human health and the environment. Emergency response actions are not considered necessary for this site at this time.

5.0 SUMMARY AND CONCLUSIONS

Trico Industries, Inc. formerly produced oil well completion equipment at its Torrance facility. The facility was in operation from 1952 to 1992. Operations were typical of a machine shop

PACCAR 00513

7.0 REFERENCES

1. Internal EPA Memorandum, not dated.

2. Roy F. Weston, Inc., Site Reconnaissance Interview and Observations Report, October 27, 1992.

3. U.S. Geological Survey, Torrance Inglewood, South Gate and Long Beach Quadrangles, 7.5 minute series topographic maps, 1964, photo revised 1981.

4. Latitude/Longitude Calculation Worksheet

5. Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel 065043-1010B, December 2, 1980.

6. National Oceanic and Atmospheric Administration, Monthly Station Normals of Temperature, Precipitation, and Heating and Cooling Degree Days, California, January 1992.

7. University of California - Los Angeles, Spence Collection of Aerial Photographs, Reviewed by WESTON, October 14, 1992.

8. SCS Engineers, Preliminary Draft Report for Additional Site Investigation at the Trico Industries Facility, November 1987.

9. SCS Engineers, Report for Further Site Investigation at the Trico Industries Facility, April 1988.

10. California Department of Toxic Substances Control - Region 4, File for B&W Inc., Calsites ID #19350260, Reviewed by WESTON, October 14, 1992.

11. South Coast Air Quality Management District, Permit to Operate #M21678, August 18, 1992.

12. U.S. Geological Survey, Geology, Hydrology, and Chemical Character of Ground Waters in the Torrance-Santa Monica Area, California, Water Supply Paper 1461, 1959.

13. Oatman, Brian A., Roy F. Weston, Inc. and Schaich, Chuck, Torrance Water Division, Water supply wells in the Torrance area, telephone conversation, October 13, 1992.

14. U.S. EPA GIS Center, Site Report, Trico Industries, October 29, 1992.

15. Dragolovich, Kate, Ecology & Environment, and Whitoff, Terry, Dominguez Water Corporation, Water supply wells, telephone conversation, July 11, 1990.

16. Oatman, Brian A., Roy F. Weston, Inc. and Spring, Chuck, Dominguez Water Corporation, Water supply wells, telephone conversation, November 12, 1992.

PACCAR 00514

APPENDIX A

Contact Reports

SITE RECONNAISSANCE INTERVIEW AND OBSERVATIONS REPORT

REPORT BY: ROY F. WESTON, INC.

OBSERVATIONS MADE BY: Brian Oatman
Carol Hays

DATE: October 27, 1992

FACILITY REPRESENTATIVES: Leo P. Cahill, Trico Industries, Inc.
James H. Dunavant, Trico Industries, Inc.
Larry L. Sims, PACCAR Inc.

SITE NAME: Trico Industries Inc.
1206 West 196th Street
Torrance, CA 90502

EPA ID#: CAD981450828

Information provided during interview:

Owner/Operator History

The site is currently owned by Trico Industries, Inc. (TRICO), a subsidiary of PACCAR, Inc. The site was developed in 1952 by B&W Inc. to produce oil well completion equipment. Property use prior to the early 1950's is unknown. TRICO purchased B&W in 1981 and continued the operation. PACCAR, Inc. purchased TRICO in 1988. The Torrance facility is scheduled to close on October 30, 1992. After that date, TRICO plans to remove the plant equipment and has no future plans for the property. In 1987 or 1988 the property was subdivided and the western portion of the property (along Normandie Avenue) was sold. The parcel which was sold is now occupied by Mighty Enterprises and was not accessed during the site reconnaissance. Reportedly, TRICO's past activities on both properties was generally the same.

Site Operations

TRICO manufactures oil well completion equipment at the Torrance facility and operations have remained relatively unchanged for the past 40 years. Manufacturing operations are typical of a machine shop and consist of the forming of parts from sheets or rolls of steel. The steel is heated electrically for many production operations, so chemical cleaning of the steel is not needed. Parts are formed using blanks and punch presses, then rolled into the desired shape and assembled by welding or by fittings such as pins. The only wastes produced in the process are scrap metal and welding scrap. Finished products are coated with brown paint in a dip tank. The products hang from a conveyor on the ceiling and pass through the dip tank.

A cesspool was used for disposal of liquid waste from the site bathrooms from the 1960's to the early 1970's. The cesspool was cleaned, filled in and paved over in 1987. Soil borings and two monitoring wells have been drilled onsite to investigate soil and groundwater contamination in

CONTACT REPORT

AGENCY/AFFILIATION:	Dominquez Water Corporation	
DEPARTMENT:		
ADDRESS/CITY:	P.O. Box 9351/Long Beach	
COUNTY/STATE/ZIP:	Long Beach County/California/90810	
CONTACT(S)	**TITLE**	**PHONE**
Terry Withoff	Operations Manager	(213) 834-2625
RFW PERSON MAKING CONTACT:	Kate Dragolovich, Ecology & Environment	**DATE:** 07-11-90
SUBJECT:	Drinking water wells within four miles of the site	
SITE NAME:	Trico Industries	**EPA ID#:** CAD981450828

The only two active wells that Dominquez Water Corporation owns within four miles of the site are:

1. Well #75, located at Main and Lomita Streets (4S13W29E05S), is 483 feet deep and perforated at 196 to 214 feet below ground surface (bgs), 262 to 290 feet bgs, and 350 to 410 feet bgs.

2. Well #79, located at 229th and Anchor (one block west of Avalon), is 925 feet deep and perforated at 480 to 652 feet bgs.

These wells serve approximately 85,000 residents of the city of Carson. The drinking water supply is a blend of 25% groundwater and 75% imported surface water from the Metropolitan Water District (MWD). The MWD surface water is transported long distances, via aqueduct, from the Colorado River in Arizona and the Sierra Nevada Mountains in Northern California.

VERIFIED BY CONTACT: From Del Amo, EPA ID #CAD029544731	**DATE:**

CONTACT REPORT

AGENCY/AFFILIATION: California Department of Fish and Game		
DEPARTMENT:		
ADDRESS/CITY: 4775 Bird Farm Road/Chino		
COUNTY/STATE/ZIP: San Bernardino County/California/91709		
CONTACT(S)	**TITLE**	**PHONE**
Linda Pardy	Biologist	(714) 597-9823
RFW PERSON MAKING CONTACT: Brian A. Oatman		**DATE:** 10-20-92
SUBJECT: Dominguez Channel as a fishery		
SITE NAME: Trico Industries		**EPA ID#:** CAD981450828

Rivers in L.A. area have been altered so much that Fish and Game has not done a survey on them in many years. If the Dominguez Channel is perennially flowing, there would likely be freshwater fish such as bluegill and bass, and it would possibly be used for sport fishing.

VERIFIED BY CONTACT:	**DATE:**

"No initialed concurrence as of December 16, 1992"

CONTACT REPORT

AGENCY/AFFILIATION: Southern California Water Company		
DEPARTMENT:		
ADDRESS/CITY: 17140 S. Avalon Boulevard/Carson		
COUNTY/STATE/ZIP: Los Angeles County/California/90746		
CONTACT(S)	TITLE	PHONE
Kyle Snay		(310) 354-1300
RFW PERSON MAKING CONTACT: Brian A. Oatman		DATE: 11-12-92
SUBJECT: Water supply wells		
SITE NAME: Trico Industries		EPA ID#: CAD981450828

Southern California Water Company uses 20% groundwater and 80% Metropolitan Water District.

Groundwater comes from a total of 15 - 20 wells, and about half of these may be within a four mile radius of the site near the intersection of Normandie Avenue and 196th Street.

An estimated 40,000 people are served by wells within the four mile radius. However, the distribution system is configured so that water can pass between four individual systems or pressure gradients as needed. Thus, the total population which possibly might be served by the wells near the site would be greater.

Wells in the area are 400 - 500 feet deep.

VERIFIED BY CONTACT:	DATE:

"No initialed concurrence as of December 16, 1992."

WESTON
MANAGERS DESIGNERS/CONSULTANTS

PHOTO 1. INTERIOR OF SOUTH BUILDING, PRODUCTION AREA, FACING EAST.

PHOTO 2. INTERIOR OF SOUTH BUILDING, STORAGE AREA IN NORTHEAST CORNER, FACING WEST.

WESTON
MANAGERS DESIGNERS/CONSULTANTS

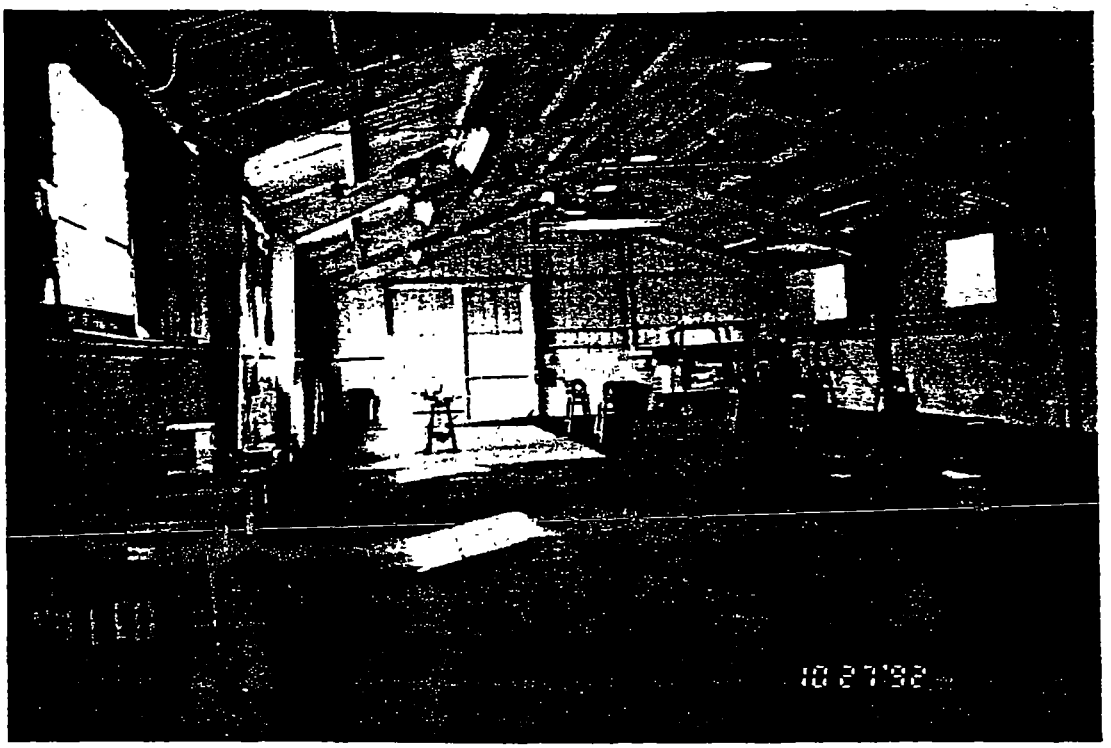


PHOTO 5. INTERIOR OF WEST WAREHOUSE/STORAGE BUILDING, FACING NORTH.

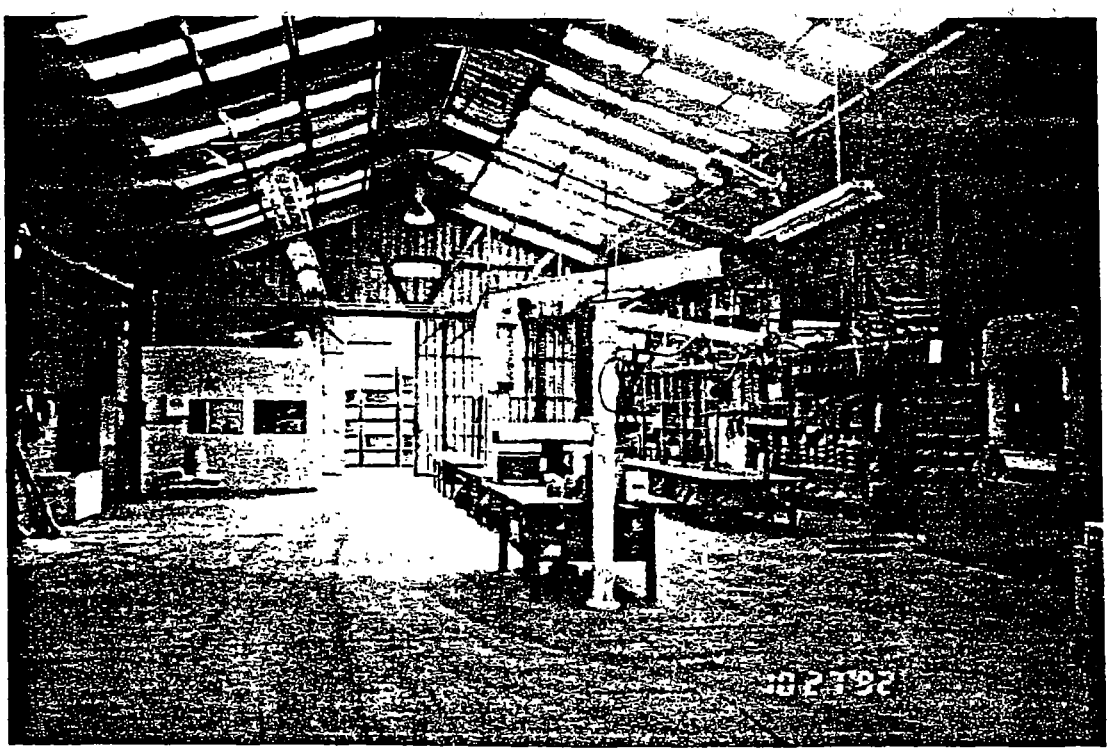


PHOTO 6. INTERIOR OF EAST WAREHOUSE/STORAGE BUILDING, FACING SOUTH.

PHOTO 9. CONCRETE DRAINAGE DITCH EAST OF PROPERTY, FACING SOUTH

LATITUDE AND LONGITUDE CALCULATION WORKSHEET #2
LI USING ENGINEER'S SCALE (1/60)

SITE: TRICO INDUSTRIES CERCLIS #: CAD981450828

AKA: _____ SSID: _____

ADDRESS: 1206 WEST 196TH STREET

CITY: TORRANCE STATE: CA ZIP CODE: 90502

SITE REFERENCE POINT: NORTHWEST CORNER OF MAIN PLANT BUILDING

SGS QUAD MAP NAME: TORRANCE TOWNSHIP: 4 N/(S) RANGE: 14 E/(W)

SCALE: 1:24,000 MAP DATE: 1964 SECTION: 36 1/4 ____ 1/4 ____ 1/4

MAP DATUM: (1927) 1983 (CIRCLE ONE) MERIDIAN: Mt. San Bernardino

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 7.5' MAP (attach photocopy):

LONGITUDE: 118° 15' 00" LATITUDE: 33° 45' 00"

COORDINATES FROM LOWER RIGHT (SOUTHEAST) CORNER OF 2.5' GRID CELL:

LONGITUDE: 118° 17' 30" LATITUDE: 33° 50' 00"

CALCULATIONS: LATITUDE (7.5' QUADRANGLE MAP) 7.5' = 454 RULER DIVISIONS

A) NUMBER OF RULER GRADUATIONS FROM LATITUDE GRIN LINE TO SITE REF POINT: 206

B) MULTIPLY (A) BY 0.3304 (150/454) TO CONVERT SECONDS: A x 0.3304 = 68.06. 88"

C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): 1' 08. 06"

D) ADD TO STARTING LATITUDE: 33° 50' 00. 00" + 1' 08. 06 =

SITE LATITUDE: 33° 51' 08. 06"

CALCULATIONS: LONGITUDE (7.5' QUADRANGLE MAP) 7.5' = 354 RULER DIVISIONS

A) NUMBER OF RULER GRADUATIONS FROM RIGHT LONGITUDE LINE TO SITE REF POINT: 47

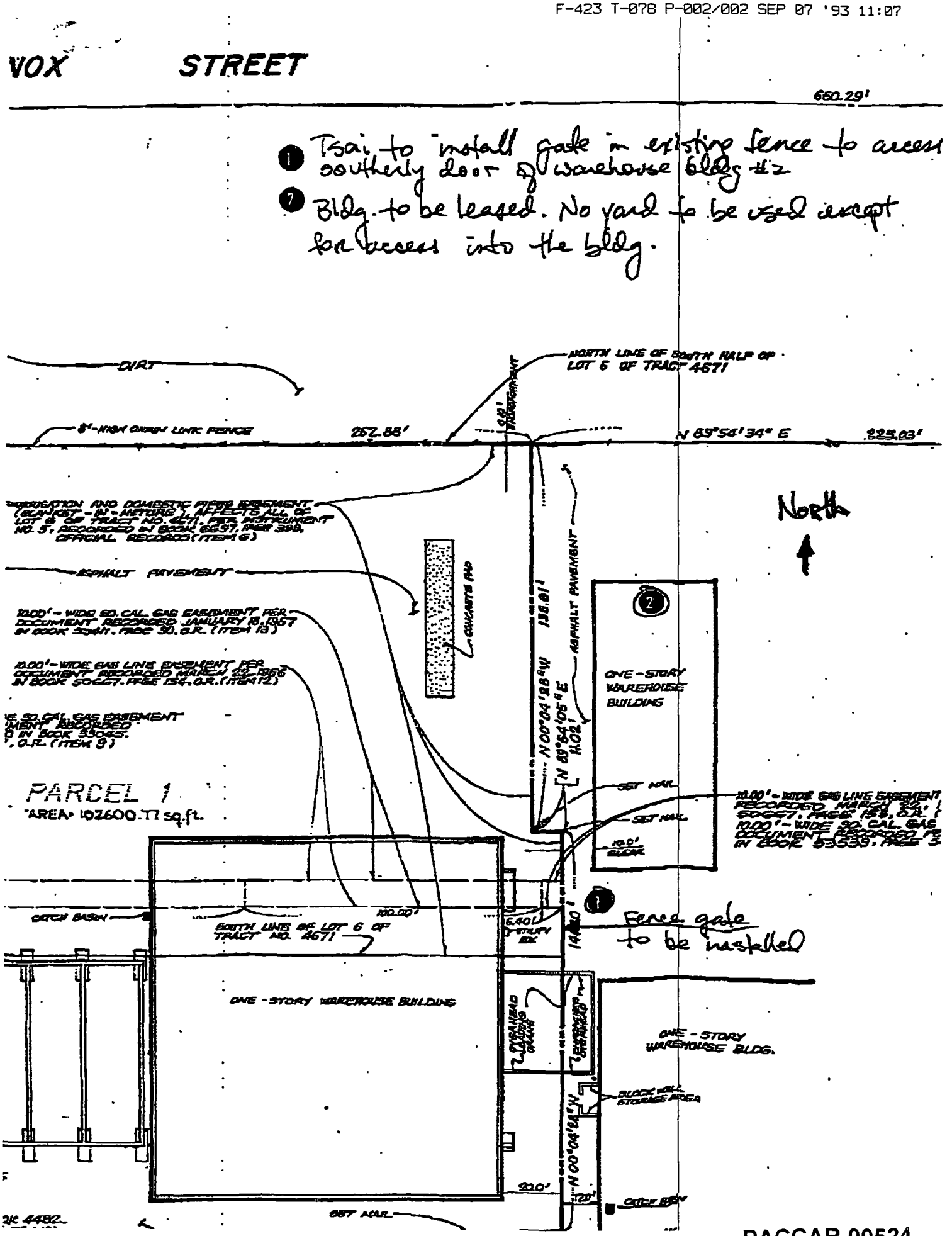
B) MULTIPLY (A) BY (150/380) = 0.3947 TO CONVERT TO SECONDS: A x 0.3947 = 18. 55"

C) EXPRESS IN MINUTES AND SECONDS (1' = 60"): 0' 18. 55"

D) ADD TO STARTING LONGITUDE: 118° 17' 30. 00" + 0' 18. 55 =

SITE LONGITUDE: 118° 17' 48. 55"

INVESTIGATOR: BRIAN A OATMAN DATE: 11/02/92


VOX STREET
660.29'
1 Tsai to install gate in existing fence to access southerly door of warehouse bldg #2
2 Bldg. to be leased. No yard to be used except for access into the bldg.
DIRT
NORTH LINE OF SOUTH HALF OF LOT 6 OF TRACT 4671
8'-HIGH CHAIN LINK FENCE
262.88'
N 89°54'34" E
225.03'
North
ASPHALT PAVEMENT
CONCRETE PAD
ONE-STORY WAREHOUSE BUILDING
SET NAIL
PARCEL 1
AREA 102600.77 sq.ft.
CATCH BASIN
100.00'
SOUTH LINE OF LOT 6 OF TRACT NO. 4671
Fence gate to be installed
ONE-STORY WAREHOUSE BUILDING
ONE-STORY WAREHOUSE BLDG.
BLOCK WALL STORAGE AREA
20.0'
12.0'
CATCH BASIN
SET NAIL

PRELIMINARY ENVIRONMENTAL
SITE ASSESSMENT AT
FORMER TRICO INDUSTRIES, INC. FACILITY
1206 WEST 196TH STREET
TORRANCE, CA

Prepared for:
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TRICO Industries, Inc.
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Prepared by:
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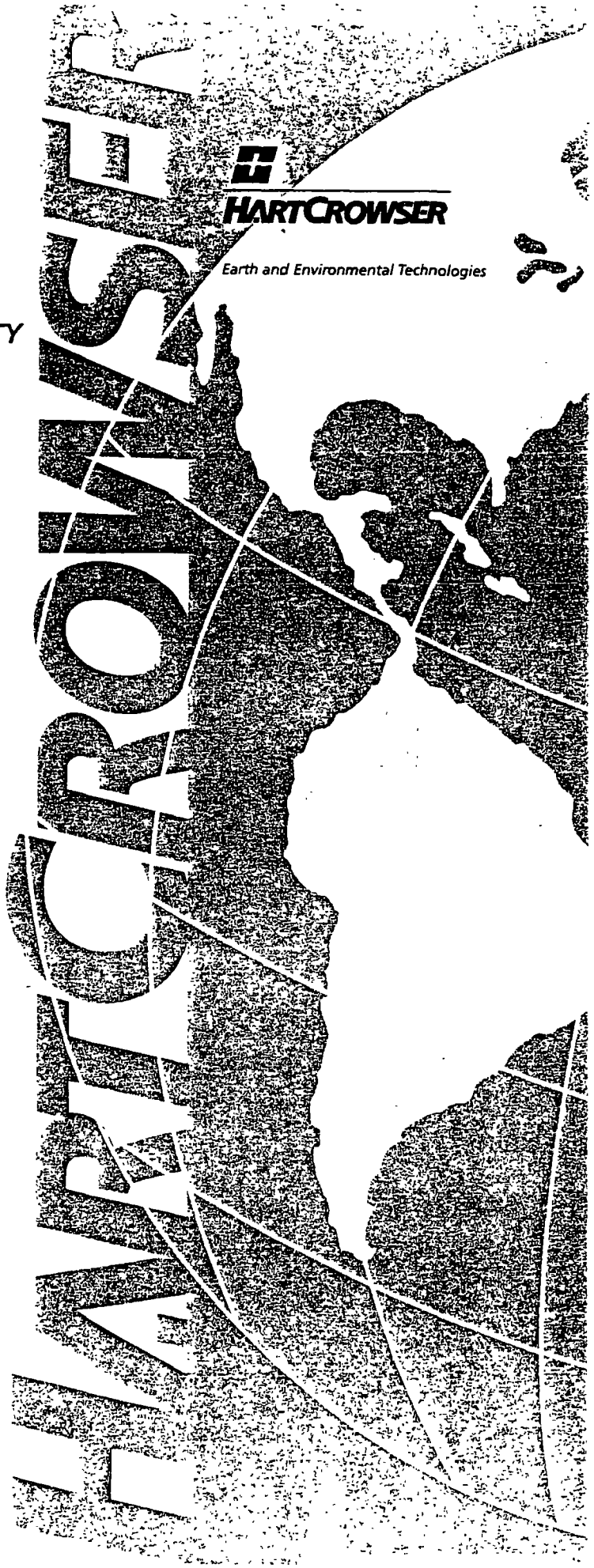
One World Trade Center, Suite 2300
Long Beach, CA

Raymond Zeoli, R.E.A.
Operations Manager

David Darrow
Environmental Scientist

April 4, 1995
Project No. 6756



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PACCAR 00527

1.0 INTRODUCTION

This report presents the results of our Preliminary Environmental Site Assessment (PSA) conducted at TRICO Industries, Inc. former manufacturing facility located at 1206 West 196th Street in Torrance, California (see Site Vicinity Map, Figure 1). This project was completed in accordance with our proposal (95-47-5008) dated November 1, 1994.

The purpose of this PSA is to provide environmental information on current property conditions and past practices which may have bearing on legal or financial liabilities associated with the subject property.

Our assessment of the subject property included the following:

- Review of historical and recent aerial photographs.
- Review of current environmental regulatory agency published database lists to determine whether the subject property or neighboring properties are identified on the lists.
- Contacting the California Regional Water Quality Control Board (Region 4), the Los Angeles County Department of Public Works - Leaking Underground Storage Tank Records and Building Department, the California Department of Toxic Substances Control (Region 4), the State of California Division of Oil and Gas, and Southern California Edison for file and regulatory information on the subject property and neighboring properties.
- Interview with Mr. Jim Dunavant (TRICO employee) and Mr. Leo Cahill (former TRICO employee) about former property use and practices.
- Review of environmental assessments previously conducted at the subject property.
- Conducting a site reconnaissance of the subject property and a walk/drive-by of surrounding properties.
- Obtaining selected building material samples from the subject property for analysis of asbestos content.
- Conducting on-site qualitative analysis of selected painted surfaces for lead content.

PACCAR 00528

2.0 SUMMARY OF FINDINGS

The following is a summary of our findings concerning potential environmental issues resulting from historical activities at the subject property and neighboring properties.

2.1 On-site Activities

Historical land use at the subject property included the storage of construction related equipment followed by the manufacture of paints and storage of solvents. The subject property was most recently occupied by TRICO Industries. TRICO manufactured, stored, and shipped oil well completion equipment. TRICO vacated the subject property in October 1992.

Substances used and stored on the property have included oil, hydraulic fluids, solvents, and paints. As indicated on the Site Plan (Figure 2), seven above-ground storage tanks (ASTs), two waste water clarifiers, and a cesspool (a concrete basin with an open bottom to the soil) were formerly operational on the property (Note: The exact locations of the four former ASTs shown on the western property line are unknown. Aerial photographs do not reveal which side of the property line these ASTs were located.)

Based on our historical review, previous land use at the subject property has had the potential to adversely impact the subject property. Previous Phase II assessments conducted at the property have detected concentrations of chlorinated solvents in the soil and groundwater.

2.2 Neighboring Properties' Activities

Historical and current land uses of neighboring properties include synthetic rubber production, aerospace manufacturing, chemical manufacturing, lumber treatment and storage, automotive repair, and agricultural use. A portion of the former Shell Synthetic Rubber Plant located on the east side of the subject property is now on the National Priority List (the Del Amo Superfund site). Based on our review, activities at neighboring properties may have adversely impacted the subject property.

2.3 Asbestos Screening

A limited sampling and analysis of potential asbestos-containing building materials (ACBMs) was conducted at the buildings on the subject property. Asbestos was detected in the samples from vinyl floor tiles. The floor tiles were observed to be in good condition. The ceiling material and sheetrock samples did not contain detectable concentrations of asbestos.

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2.4 *Lead-based Paint Screening*

A limited field screening for lead based paint was conducted for the buildings on the subject property. Lead was detected in several paint samples from the exterior of Building B. Lead was not detected in the paint samples collected from Buildings A and C.

3.0 SITE DESCRIPTION

The subject property is located in an industrial area in an unincorporated section of the County of Los Angeles, California (see Site Vicinity Map, Figure 1). Land use within one mile of the subject property is industrial, commercial, and residential. The subject property is approximately 100,000 square feet (sf) in area. It is developed with three buildings (Building A, B, and C) and is paved with asphaltic concrete or concrete slab-on-grade with no exposed soil. The three buildings are single story and of different heights. The buildings are described as follows (see Site Plan, Figure 2):

Bldg	Size	Construction	Former Use
A	20,000 sf	Concrete Block	Pump manufacturing
B	14,000 sf	Concrete Block with Metal Siding	Warehouse/Shipping
C	4,000 sf	Concrete Block	Warehouse

The subject property address is 1206 West 196th Street. The property is an "L"-shaped extension of the property located at 19706 South Normandie Avenue. The property at 19706 S. Normandie Avenue is currently owned and occupied by Mighty Enterprises, Incorporated, a finished products import company. At the time of our reconnaissance, Building A was observed to be empty and unused. Mighty Enterprises is currently using Buildings B and C for storage of imported patio furniture products. Both properties (1206 W. 196th Street and 19706 S. Normandie Avenue) were formerly occupied by TRICO. TRICO sold the western section of the property (19706 S. Normandie Avenue) to Mighty Enterprises in 1989.

Land use in the vicinity of the subject property is composed primarily of industrial facilities. American Polystyrene Company (formerly Amoco Chemical Company) is located to the north; Mighty Enterprises (an importer) and a lumber yard are located to the west; Redman Manufacturing (a heat exchange manufacturer and repair facility) is located to the south; and R.R. Donnelly and Sons (printing facility) is located to the east. A railroad spur and unloading track is in place between the subject property and the R.R. Donnelly facility. An auto repair facility and McDonnell Douglas Aircraft

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Company are located approximately 200 feet and 600 feet northwest of the property, respectively.

Five groundwater monitoring wells exist on the subject property (see Figure 2). Three of the monitoring wells are being monitored by Dames and Moore for the Del Amo Superfund site located east of the subject property. The remaining two wells were installed by TRICO's former consultant (SCS Engineers) in 1987.

4.0 SITE GEOLOGY AND HYDROGEOLOGY

The site elevation is approximately 45 feet above mean sea level. The surface gradient is sloped to the east toward the Dominguez Channel (located approximately 1 mile to the east) with an approximate slope of 20 feet per mile.

SCS indicates that the site is located in an area predominantly underlain by silt and sand (flood plain deposits) to a depth of 50 feet below ground surface (bgs). The Palos Verdes Sand exists from 50 to 100 feet bgs and is comprised of coarse-grained sand and gravel. An unnamed formation exists from 100 to 200 feet bgs and is comprised of fine-grained silt, clay, and sand in the upper half, and sand and gravel in the lower half. The San Pedro Formation is reported to exist below the 200 foot bgs level and is comprised of clay, silt, sand, and gravel and is approximately 500 feet thick.

SCS indicates that the depth to groundwater is approximately 60 to 65 feet bgs in this area. The general groundwater gradient in the vicinity of the subject property is reported to be to the southeast. Local site conditions may vary from regional conditions.

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5.0 SITE HISTORICAL CONFIRMATION

Our site historical confirmation consisted of a review of the following:

- Aerial photographs at Whittier College, Department of Geography, 1927 through 1958 (not consecutive years) and Rupp Aerial Photography, 1938 through 1992 (not consecutive years)
- USGS Topographic Maps (Torrance, California, 1964, photo revised in 1981)
- Sanborn Fire Insurance Maps
- Building Permits, Los Angeles County Department of Public Works
- Interviews with Mr. Jim Dunavant and Mr. Leo Cahill

5.1 Aerial Photographs

We reviewed aerial photographs dated 1927 to 1992, and made the following observations:

- Photographs dated 1927 through 1947 show the subject property to be undeveloped. Land use in the vicinity includes farms located to the north and south of the subject property.

- A photograph dated 1941 shows the farm on the north side to have expanded to include portions of the subject property.

- A photograph dated 1946 shows the Shell Oil Company Synthetic Rubber Plant and McDonnell Douglas Aircraft Plant to be in place. The Shell plant is located adjacent to the subject property on the east side and the Douglas plant is located approximately 600 feet northwest of the subject property. This photograph shows the Shell plant with numerous ASTs, some within 50 feet of the subject property. A railroad line is visible in place around the perimeter of the Shell plant, adjacent to the subject property.

- A photograph dated 1951 shows Building C of the subject property in place. This photograph also shows miscellaneous debris on the southern portion of the subject property.

- A photograph dated 1954 shows the northern half of Building A in place. This photograph also shows a row of small above-ground tanks along the northwestern property line. This photograph does not reveal which side of the property line the tanks were located.

- A photograph dated 1957 shows the northern portion of Building B.

PACCAR 00532

- A photograph dated 1963 shows a southern addition to Building A. A small square building is located in the center of the property and three ASTs are present to the south of the building.

- A photograph dated 1972 shows Building C connected to a building on the 19706 S. Normandie Avenue property (to the west). It is not clear whether this connection is simply an awning or an actual structural connection. This photograph also shows the lumber yard (currently adjacent to the subject property) in place. Additionally, the Shell plant has been demolished and the land is undeveloped.

- A photograph dated 1985 shows the southern extension of Building B to be in place. Building A runs continuously, extending onto the 19706 S. Normandie Avenue parcel (to the west). At this time, the two properties are still a single parcel. The land on the east side of the subject property (where the Shell plant formerly existed) has been developed into a business park.

- A photograph dated 1992 shows the division of the property into two separate parcels [Mr. Larry Sims (PACCAR) stated this division occurred around 1989]. Building A has been divided along the western property line into two separate buildings. Further, the portion of Building C on the west side of the western property line has been removed. The small square building in the center of the property appears in the photograph, but our site reconnaissance indicates that this is probably just the slab foundation left in place after the building was demolished.

5.2 *USGS Map Review*

We reviewed the USGS topographic map for the area of the subject property. Buildings A, B and C are shown on the 1964 map. No other relevant information is available from the USGS map.

5.3 *Sanborn Fire Insurance Maps*

We researched the availability of Sanborn Fire Insurance Maps for the subject property. Sanborn Fire Insurance Maps were produced from around 1890 through the 1960s for the purpose of fire insurance in many highly developed or industrial areas. However, the vicinity of the subject property was not mapped and, therefore, no maps are available for this area.

5.4 Building Permits

We reviewed building permits for the subject property at the County of Los Angeles Department of Public Works (DPW) Annex in Lomita, California to check for the existence of permits which would indicate installation of waste water clarifiers, septic systems, underground storage tanks (USTs), and other items of potential environmental concern. Based on our building permit review, it appears that the site was originally developed in the 1940s. Through the 1950s and 1960s, the site occupants remodeled the subject buildings as well as constructed additional buildings on the property. The original land use appears to have been storage of construction related equipment (Kuchner Construction Company), followed by the manufacture of paints and storage of solvents (American Chemsolv, Inc.), and finally the manufacture of oil well completion equipment (B & W Monarch followed by TRICO). Substances used and stored on the property have included oil, hydraulic fluids, solvents, and paints.

The earliest permits contained in the file for 1206 W. 196th Street are dated 1957. These permits were obtained for the construction of a cesspool. Building permits indicate that the subject property was occupied by American Chemsolv, Inc. (a paint manufacturing and solvent storage facility) in 1957. By 1974, B & W Monarch (TRICO's predecessor) occupied the property.

We did not locate installation or abandonment permits for either the concrete-filled, three-stage vehicle and parts washing clarifier currently in place in the center of the subject site or for the waste water clarifier reportedly located in the southeast corner of the subject property shown on DPW documents. We reviewed a permit dated 1958 for the installation of two 5,000-gallon above-ground storage tanks, and a permit dated 1960 for the "electrical wiring of pumps associated with copper column tanks." Both permits (1958 and 1960) were issued to American Chemsolv. No other permits were contained within the file for 1206 W. 196th Street.

Prior to the subject property (1206 W. 196th Street) being separated from the property at 19706 S. Normandie Avenue, the two parcels were one contiguous parcel with the Normandie Avenue address. During our building permit review at the DPW, we reviewed the permit file for the Normandie Avenue address. Permits in the file indicate the property at 19706 S. Normandie Avenue (not the subject property) was first occupied in 1947 by the Kuchner Construction Company. Two buildings and a cesspool were constructed at the Normandie property in 1947. Building permits for the Normandie property indicate a 550-gallon gasoline underground storage tank was installed in 1950, approximately 200 feet from the west end of Building A (on the Normandie property). Permits through the 1950s and 1960s list additions and

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alterations to the existing buildings, installation of a transformer and a heating, ventilation and air conditioning system.

5.5 *Interviews*

We interviewed Mr. Dunavant (TRICO) before and during our site reconnaissance. He stated that TRICO purchased B & W, Inc. in 1981, and TRICO was purchased by PACCAR, Inc. in 1987. In 1989, the western portion of the TRICO property with the 19706 S. Normandie Avenue address was sold to Mighty Enterprises.
Mr. Dunavant indicated that he never worked at the Torrance TRICO facility. He identified Mr. Leo Cahill as the former TRICO Torrance facility manager. We also spoke with Mr. Larry Sims (PACCAR) who indicated TRICO maintained two, 200 to 500 gallon solvent-containing ASTs on the southwest corner of Building B. We did not observe either of these ASTs during our site reconnaissance.

We contacted Mr. Cahill to interview him about previous site activities. Mr. Cahill indicated that he began working at the Torrance facility when it was owned by B & W Incorporated in 1963 and worked at the facility until October 1993, when it was closed. Mr. Cahill stated he did not know about the ASTs that were on the property when American Chemsolv occupied the property. He indicated that there were two clarifiers on the property, both are reported to have been abandoned. The clarifier on the central portion of the property was used to process vehicle wash water and steam cleaning water from die and parts washing. The clarifier on the southeast corner of the property was connected from a machine outflow stream to the storm drain.

6.0 REGULATORY AGENCY FILE AND LIST REVIEW

We contracted with Environmental Risk Information and Imaging Services (ERIIS) to perform a search of Federal and State regulatory agency database listings. We reviewed the regulatory agency database lists presented by ERIIS (see Appendix A) to obtain information of potential concern regarding the subject property and off-site properties within a one-mile radius of the subject property.

In addition, we visited the Regional Water Quality Control Board (RWQCB), the Los Angeles County Department of Public Works (DPW), the California Department of Toxic Substances Control (DTSC), and the California Department of Conservation, Division of Oil and Gas (DOG) to review regulatory file information on the subject and neighboring properties. Our findings are provided below.

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6.1 Subject Property

Agency Lists. The subject property address appears on the RCRIS-SG, HWIS, CERCLIS, TRI, FINDS, and CORTESE lists (see Appendix A for explanation of acronyms).

The RCRIS-SG database is a listing of facilities that generate between 100 kilograms and 1,000 kilograms of hazardous waste per month. The HWIS database is a listing of facilities that are required to report their hazardous waste activities to the California Environmental Protection Agency (Cal EPA). These listings do not necessarily indicate a problem; rather, these listings indicate that the associated facilities have generated hazardous wastes that are regulated on a federal and state level.

The CERCLIS database is a listing of sites which may require cleanup or are being reviewed by the United States Environmental Protection Agency (USEPA) for potential listing on the National Priorities List (NPL). Based on an evaluation conducted by Weston under contract to the USEPA, the TRICO facility has not been listed on the NPL (see section 7.4).

The TRI database is a listing of facilities which have reported a release or transfer of toxic chemicals. The FINDS database is a listing of facilities being tracked by the USEPA. The CORTESE database is a listing of facilities which have reported underground storage tank (UST) releases, impacted groundwater supply wells, or may have operated sanitary landfills. The subject property is listed on the aforementioned databases. Because the subject property appears on these databases, there is some concern about potential impact to the environment from on-site activities.

RWQCB Files. The RWQCB file information indicates the cesspool installed in the 1960s was abandoned in 1974, but not filled in with concrete until 1987. The RWQCB file also contains a report by SCS Engineers that provides the results of soil and groundwater sampling and analysis conducted at the subject property by SCS in 1987. In summary, the SCS report indicates that concentrations of volatile organic compounds (VOCs), including chlorinated compounds, are present in the soil and groundwater beneath the subject property (see Section 7.1 for a discussion of the SCS Report).

We spoke with Mr. Keith Elliot (Water Resource Control Engineer with the RWQCB) about the TRICO file. He stated that the RWQCB does not have oversight jurisdiction of the TRICO facility at this time.

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Mr. Elliot indicated that the RWQCB is systematically reviewing all cases of solvent-impacted soil and groundwater within the Los Angeles region. The RWQCB may request a remedial action plan to address impacted soil and groundwater at selected facilities based on the concentrations of solvents present.

DPW Files. The DPW files contain information pertaining to the concrete-filled vehicle and parts washing clarifier located at the subject property. Additionally, the files contain blueprints showing another clarifier in the southeast corner of the property (the clarifier Mr. Cahill referred to). The files did not contain information relating to environmental issues concerning the subject property.

DTSC Files. Based on information reviewed at the DTSC, it appears that in July 1992, the TRICO facility was identified as potential hazardous waste site and listed on the CERCLIS database. In October 1992, Roy F. Weston, Inc., under a USEPA contract, conducted a Hazard Ranking System (HRS) assessment at the subject property as part of the USEPA's Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The results of the HRS assessment did not recommend placing the TRICO facility on the NPL.

6.2 Neighboring Properties

Agency Lists. We reviewed the regulatory agency database listings for neighboring properties in the vicinity of the subject property. Properties within one-quarter mile of the subject property appear on the CERCLIS, LUST, and CORTESE lists (see Appendix A for explanation of acronyms). Other facilities within one-mile of the subject property appear on other agency lists including the Del Amo and Montrose Superfund sites.

The Del Amo Superfund site is located in the southeast corner of the former Shell plant. This Superfund site is located approximately 2,500 feet southeast and down gradient, with respect to ground water flow, from the subject property. The Montrose Superfund site is located approximately 2,000 feet southwest and down gradient, with respect to ground water flow, from the subject property. Because of their distance from the subject property, these two sites do not appear to pose a threat of potential impact to the subject property.

Aside from the Del Amo and Montrose Superfund sites, the CERCLIS sites within one-quarter mile have been inspected and have received No Further Action (NFA) status from the USEPA, indicating the USEPA has decided the sites do not warrant cleanup under CERCLA.

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RWQCB Files. We reviewed the file for McDonnell Douglas Aircraft Company at the RWQCB. The McDonnell Douglas facility is located about 600 feet west and northwest of the subject property. The file contained soil and groundwater analysis information. A consultant to McDonnell Douglas identified soil impacted with solvents on-site. The McDonnell Douglas consultant also reported solvent-impacted groundwater was coming onto the McDonnell Douglas property from the northwest.

We spoke with Mr. David Hung with the RWQCB about solvent-impacted soil and groundwater in the Torrance area. He stated that he does not know of a solvent plume in the vicinity of the subject property.

DPW Files. Files we reviewed at the DPW did not indicate potential issues of solvent-impacted soil or groundwater originating from neighboring or adjacent properties.

DTSC. The DTSC files we reviewed contained information on the Amoco Chemical Company facility located adjacent to the northern property line, a paint manufacturing facility located north of the subject property, and a pesticide manufacturing facility located southwest of the subject property.

The files indicate Amoco Chemical Company used solvents, stored drums, and maintained ASTs and sumps at their facility. A cesspool was reportedly abandoned in 1969. No information about soil sampling in the vicinity of the cesspool was contained in the file. The paint manufacturing facility formerly maintained 14 underground storage tanks (USTs) containing solvents, pigment, and paint thinner. The DTSC file contained a violation issued to the facility for discharging paint waste to the ground. Eleven of the 14 tanks at this facility were abandoned in place, presenting a potential source of solvent-impacted soil and/or groundwater if the tanks were leaking prior to being abandoned in place. The pesticide manufacturing company operated from 1947 to 1951. Because of the proximity of this facility, a slight potential for soils impacted by airborne pesticides exists.

DOG. We requested oil well information at the DOG. No wells are on record in the vicinity of the subject property.

7.0 PREVIOUS SITE INVESTIGATIONS

We reviewed reports of previous investigations conducted at the subject property. During our meeting with Mr. Dunavant, he provided us with an USEPA Preliminary Assessment Report performed by Roy F. Weston, Inc. in 1992, and groundwater data, as presented by Dames and Moore, from the three Superfund site wells located

on the east side of the subject property. At the RWQCB, we reviewed a Phase II report conducted by SCS Engineers in 1987, and groundwater sampling data reported by Hargis and Associates in 1990.

7.1 SCS Engineers

We reviewed the SCS Engineers report prepared in 1987. This report contained soil and groundwater sampling data from soil boring and groundwater monitoring well locations as shown on the Site Plan (see Figure 2). As indicated, SCS Engineers installed eleven soil borings in 1987, to assess soil in the vicinity of the former cesspool, solvent and paint storage area, former steam cleaning area, former vehicle maintenance area, and the former UST located on the 19706 S. Normandie Avenue property. Two of the soil borings were converted to groundwater monitoring wells. One well is located in the vicinity of the former cesspool (MW-1) and the other is located in the vicinity of the solvent and paint storage area (MW-2).

Varying concentrations of chlorinated VOCs were detected in subsurface soil samples collected throughout the site. VOC concentrations were detected in soil samples collected near the former cesspool area at depths ranging from 10 feet bgs to 65 feet bgs (borings BH-6, BH-7, and BH-8). The highest VOC concentrations were detected at 40 feet bgs in BH-6. The concentrations appear to increase with depth in this area. The boring installed in the vicinity of the former UST (on the Normandie Avenue property) did not contain detectable concentrations of petroleum hydrocarbons. SCS concluded that the UST had not impacted the surrounding soils. The laboratory analytical results for the soil samples taken at the subject property are presented in Table 1.

SCS collected and analyzed groundwater samples from wells MW-1 and MW-2 in 1987. The analytical results indicated detectable concentrations of chlorinated VOCs in both wells. The laboratory analytical results for the groundwater samples are presented in Table 2.

7.2 Hargis and Associates

We reviewed a report completed by Hargis and Associates in 1990. The report contained groundwater analytical data from a 1990 sampling event for MW-2 only. A summary of the Hargis and Associates data are provided in Table 2. As shown in the table, chlorinated VOC concentrations changed modestly; some VOC concentrations increased while other concentrations decreased.

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7.3 Dames and Moore

We reviewed groundwater sampling data reported by Dames and Moore for the three Del Amo Superfund site monitoring wells located on the northeastern portion of subject property. Groundwater samples collected in the last quarter of 1993 did not have detectable concentrations of solvents. We could not confirm the depth of the wells to determine if they are completed in the same aquifer as the three wells that were installed by SCS Engineers.

7.4 Weston

The Weston report was prepared under contract from the USEPA. Weston evaluated the subject property's eligibility for cleanup under CERCLA and for potential listing on the NPL. The Weston report incorporated data obtained during their site reconnaissance as well as data from the 1987 SCS report. Based on the findings in the Weston report, the TRICO facility was not included on the NPL.

8.0 SITE RECONNAISSANCE

On January 30, 1995, Mr. David Darrow (Hart Crowser), met Mr. Jim Dunavant (TRICO) at the subject property and conducted a site reconnaissance to observe the site and the adjacent properties. Mr. Darrow discussed the past operations at the subject property with Mr. Dunavant. The site reconnaissance included a visual inspection of the three buildings (see Photographs 1 through 6, Appendix B) and a visual observation of the surrounding properties.

We observed a clarifier to be abandoned in place in the center of the subject property. TRICO and B & W reportedly operated a three-stage clarifier located in the center of the site from the 1950s to the 1980s. The clarifier was formerly used to collect water from vehicle, parts, and die washing prior to disposal to a storm drain system.

A chemical storage area was formerly located on the east side of Building A. We visually inspected the area and observed moderate staining. The area was observed to be paved with concrete.

Two of the three subject property buildings are currently used for storage of imported patio furniture products. The importer (Mighty Enterprises) occupies the property at 19706 S. Normandie Avenue. We observed Buildings B and C to be partially full of the imported goods (see Photographs 7 and 8, Appendix B).

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We observed a lumber storage yard to the west of the subject property. This lumber yard was observed in aerial photographs from 1972 through 1992. American Polystyrene Corporation is located to the north of the property. We observed ASTs at this property.

8.1 Lead-Based Paint

We performed a qualitative field screening of selected deteriorated painted surfaces on the buildings at the subject property using LeadCheck™ to screen for the presence of lead-based paint. We performed ten tests on paint from the interior and exterior of the three buildings. The results of our paint screening are presented in Table 3.

The paint tested positive for lead on three samples from the exterior of Building B. The remaining seven samples from Buildings A, B, and C tested negative for lead content. No paint was observed on the exterior of Building A or on the south end of Building B. These tests are intended only as a screen, and the presence (or absence) of lead cannot be verified without laboratory chemical analysis of samples.

8.2 Polychlorinated Biphenyls (PCB)

We identified six pole-mounted transformers, one transformer mounted to the side of Building B, and numerous fluorescent light fixtures at the subject property.

We contacted Southern California Edison (SCE) representative, Mr. Barry Guimont, to obtain information on the pole-mounted transformers we identified at the subject property. Mr. Guimont could not provide specific information on the transformers at the subject property. He provided a form letter which stated "In a statistically valid test of over 2,000 SCE distribution transformers, we determined that the concentration of PCB in the mineral oil is less than 50 parts per million (ppm) in over 96 percent of the units. The mineral oil in the 4 percent of the units that tested above 50 ppm is generally below 100 ppm." The letter indicated that SCE will conduct testing on transformer fluid upon request. If the transformer fluid contains less than 50 ppm PCBs, the cost of testing ($500) will be passed on to the party requesting the test. In the event that the fluid contains greater than 50 ppm PCBs, SCE will cover the cost of the test.

The transformer mounted to Building B appears to be an air-cooled transformer and should not contain dielectric fluids.

The transformers at the subject property were observed to be in good condition. No staining, discoloration, or corrosion were observed on the transformers.

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Based on the age of the subject buildings, it is likely that some of the fluorescent light fixtures in the three subject buildings have PCB-containing ballasts. We did not observe leaking ballasts during our reconnaissance.

9.0 ASBESTOS SCREENING

We obtained bulk samples of selected building materials from various locations throughout the three buildings. The bulk building material samples were analyzed for asbestos content by Polar Light Microscopy. The results of our building material sampling are presented in Table 4. The laboratory analytical data sheets are presented in Appendix C.

We did not identify floor tiles, ceiling tiles, or sheetrock in Building C and, therefore, we did not obtain samples of building materials from Building C. The results of our asbestos screening indicate that samples of floor tiles obtained from Buildings A and B contained asbestos. The results from our limited asbestos bulk sample testing do not constitute a California Occupational Safety and Health Administration (CAL OSHA) approved asbestos survey. Our limited asbestos testing intended only to screen for the presence of exposed asbestos-containing materials. In order to confirm the presence or absence of asbestos in all building materials, a comprehensive asbestos survey would need to be completed at the three buildings.

10.0 POTENTIAL FOR ENVIRONMENTAL IMPACTS

Based on our site reconnaissance, historical research, interviews, and regulatory agency file review, activities undertaken at the subject property and adjacent properties appear to have the potential to have adversely affected the environment at the subject property. The following findings represent areas of confirmed or potential environmental impact at the subject property:

10.1 On-Site Sources

ASTs (Central). Former site occupants utilized three above-ground storage tanks in the central portion of the subject property to store solvents. It is possible that solvents were released to the environment during storage or transfer of solvents. SCS did not sample subsurface soil near all three ASTs during their assessment in 1987.

ASTs (Northwest). Former site occupants appear to have utilized above-ground storage tanks in the northwestern portion of the property. The former contents of these tanks is unknown. It is possible that the AST contents were released to the

environment during storage or transfer activities. SCS did not sample subsurface soil in the northwestern AST area during their assessment in 1987.

Vehicle Maintenance Area. TRICO reportedly conducted vehicle maintenance activities north of Building C. Based on SCS's soil sampling results, it appears that solvent-impacted soil is present in the vehicle maintenance area.

Paint Dip Tank. TRICO reportedly utilized a paint dip tank to coat finished parts. A drip area was located along the center portion of the north wall of Building A to contain dripping paint from painted parts. It is possible that paint and solvents were released to subsurface soil in this area. SCS did not sample subsurface soil in the paint dip tank area during their assessment in 1987.

Cesspool. B & W and TRICO utilized a cesspool on the east side of Building A to dispose of waste water. SCS conducted soil sampling around the cesspool and installed a groundwater monitoring well in the cesspool area. Soil and groundwater samples contained concentrations of chlorinated VOCs.

Clarifier (Central). The clarifier located in the center of the site near the vehicle and parts washing area was not assessed by SCS Engineers in 1987. Boring BH-4 was installed in the general vicinity to assess the former steam cleaning area. However, the clarifier itself was not specifically assessed. Soil samples from boring BH-4 contained concentrations of chlorinated VOCs.

Clarifier (Southeast). The southeast clarifier was used to process a machine outflow stream prior to discharge to the storm drain. It is possible that chemicals may have been released to subsurface soil in this area. It does not appear that SCS sampled subsurface soil near the southeast clarifier during their assessment in 1987.

Chemical Storage Area. TRICO stored chemicals (including toluene) in the southeast corner of the property. It is possible that toluene and other chemicals may have been released to subsurface soil in this area. It does not appear that SCS sampled subsurface soil in this area during their assessment in 1987.

10.2 Off-site Sources

Lumber Storage and Treatment. A lumber storage and treatment operation exists on the west side of the subject property. The facility has been in operation since 1972 or earlier. Mr. Cahill indicated he observed the lumber being treated with green and red colored liquids. We observed the ground to be bare earth. Without concrete or asphalt pavement, spilled liquids can enter the subsurface. If the lumber

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was treated on (or very near to) the subject property in the past, it is possible that related treatment chemicals may have impacted soil beneath the subject property.

Shell Synthetic Rubber Plant. From the early 1940s until the late 1960s, the Shell Synthetic Rubber Plant was located on the east-side adjacent property. A portion of this property is now on the NPL and CERCLIS list (the Del Amo Superfund site). The portion of the Shell property which has been designated a Superfund site is located approximately 2,500 feet southeast of the subject property. The Shell plant utilized numerous ASTs, some within 50 feet of the subject property. Although no detectable concentrations of target compounds were reported in groundwater samples collected from the three Superfund groundwater monitoring wells located on the eastern side of the subject property, chlorinated VOC concentrations were detected in wells MW-1 and MW-2. What impact, if any, the Shell site has had on groundwater beneath the subject property is unknown.

McDonnell Douglas. A McDonnell Douglas facility is located 600 feet west and northwest of the subject property. Solvent-impacted soil and groundwater has been identified at the Douglas facility. Their consultants contend the solvents identified in the water originated off-site (to the northwest), suggesting an off-site, up gradient source. This reported groundwater plume may pose a threat to the subject property since it is up gradient.

Other Neighboring Industrial Facilities. American Polystyrene (formerly Amoco Chemical Company) located north of the site maintains chemical-containing ASTs. We contacted the facility manager who stated the facility does not use solvents at the property. DPW documents from the 1960s indicated solvents were used by Amoco. Additionally, Amoco used a cesspool for disposal of waste water and maintained sumps. A paint manufacturer located 500 feet northwest of the subject property formerly maintained solvent-containing USTs. Some of these USTs were abandoned in place. These two sites represent a potential for impact to the subject property.

Agricultural Land Use. Our historical research indicated the subject property and neighboring properties were engaged in agricultural use from the 1920s to the 1950s. The subject property may have been impacted by previous pesticide application during the agricultural use. Also, pesticides, fungicides, and herbicides applied to surrounding properties may have drifted or washed onto the subject property. The pesticide, fungicide, and herbicide residues from farming on the subject property have had at least 40 years to break down, be washed away, or diluted. It is likely that potential residues from the pesticides, fungicides, and herbicides (if present) are in very low concentrations due to age deterioration and dilution.

11.0 LIMITATIONS

This report has been prepared in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. It is intended for the exclusive use of TRICO Industries, Inc. and PACCAR, Inc. for specific application to the subject property. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made. Our PSA included only the parcel at 1206 West 196th Street and the three buildings referred to within the text of this report. We did not assess the property at 19706 South Normandie Avenue or the buildings located thereon.

It should be noted that Hart Crowser relied on information provided by the companies and individuals indicated above. Hart Crowser can only relay this information and cannot be responsible for its accuracy or completeness.

Our work did not include a test of: soil, drinking water, indoor air quality, ventilation systems, radon vapor, PCB transformers, a survey of sources of electromagnetic frequency within the building(s) or outside the property boundary or building foundation stability, and earthquake/structural issues of building design unless otherwise noted herein.

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PACCAR 00545

REFERENCES

1. SCS Engineers, Preliminary Draft Report for Additional Site Investigation at the Trico Industries Facility, November 1987.

2. Roy F. Weston, Preliminary Assessment Report Trico Industries, Inc., 1992.

3. Groundwater sampling data at the TRICO Industries Inc. Facility as presented by Hargis and Associates, 1990.

4. Del Amo Superfund site quarterly groundwater monitoring data as presented by Dames and Moore, 1994.

Tables

TABLES

Table 1
Soil Sample Results (μg/Kg)

Sample Location	Toluene	1,2-Dichloroethane	Methylene Chloride	Tetrachloroethylene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethane	Total Recoverable Petroleum Hydrocarbons
BH-1-10	ND	–	–	–	–	–	–	ND
BH-1-15	ND	–	–	–	–	–	–	ND
BH-2-5	ND	ND	20	10	8	ND	ND	–
BH-2-10	ND	ND	296	ND	ND	ND	ND	–
BH-3-5	ND	ND	ND	ND	ND	ND	ND	–
BH-3-10	ND	ND	46	ND	ND	ND	ND	–
BH-4-5	89	ND	ND	ND	ND	ND	ND	–
BH-4-10	ND	ND	27	11	ND	ND	ND	–
BH-5-5	128	ND	23	8	20	ND	ND	–
BH-5-10	ND	11	ND	13	ND	ND	ND	–
BH-6-10	–	ND	ND	7	92	ND	ND	ND
BH-6-20	–	ND	ND	16	62	ND	ND	ND
BH-6-40	–	17,600	ND	3,070	ND	ND	ND	14,770
BH-6-60	–	62	117	122	ND	ND	ND	ND
BH-7-55	–	ND	ND	17	711	ND	23	–
BH-7-65	–	ND	ND	41	620	ND	97	–
BH-8-45	–	ND	ND	ND	418	ND	ND	–
BH-8-55	–	ND	ND	ND	226	ND	ND	–
BH-8-65	–	ND	ND	87	930	20	220	–
BH-9-5	–	ND	ND	ND	10	ND	29	–
BH-9-10	–	ND	ND	ND	ND	ND	ND	–
BH-9-20	–	ND	ND	ND	ND	ND	ND	–
BH-9-30	–	ND	ND	ND	ND	ND	ND	–
BH-9-40	–	ND	ND	ND	ND	ND	ND	–
BH-9-50	–	ND	ND	ND	120	ND	24	–
MW-1-65	–	ND	ND	ND	88	8	39	–
MW-2-5	–	ND	ND	ND	ND	ND	ND	–
MW-2-10	–	ND	ND	ND	ND	ND	ND	–
MW-2-20	–	ND	ND	ND	ND	ND	ND	–
MW-2-30	–	ND	ND	ND	ND	ND	ND	–
MW-2-40	–	ND	ND	ND	ND	ND	ND	–
MW-2-50	–	ND	ND	37	ND	ND	80	–
MW-2-60	–	ND	ND	8	ND	ND	36	–
MW-2-70	–	ND	ND	ND	ND	ND	7	–

Data obtained from Roy F. Weston, Preliminary Assessment Report, 1982

Notes: ND = Compound not detected at or above the detection limit.
-- = Sample not analyzed for that parameter.
(μg/Kg) = Micrograms per kilogram

Table 2
Groundwater Sample Results ($\mu g/\ell$)

Substance Detected	MW-1 (1987)	MW-2 (1987)	MW-1 (1990)	MW-2 (1990)
Chloroform	6.0	7.0	Not sampled	8.0
1,4-Dichlorobenzene	5.0	ND	Not sampled	ND
1,2-Dichloroethane	25	ND	Not sampled	ND
1,1-Dichloroethane	2,400	ND	Not sampled	ND
Methylene Chloride	ND	490	Not sampled	ND
Tetrachloroethylene	160	79	Not sampled	220
1,1,1-Trichloroethane	1,200	ND	Not sampled	ND
1,1,2-Trichloroethane	7.0	ND	Not sampled	ND
Trichloroethylene	470	130	Not sampled	470

Data obtained from Roy F. Weston, 1992 and Hargis and Associates 1990.

Notes: ND = Compound not detected at or above the detection limit.
($\mu g/\ell$) = Micrograms per liter.

Table 3
Qualitative Paint Screening Results for Lead

Location/Building	Lead Detected
Exterior/North side of Building B	yes
Interior/North side of Building B	no
Exterior/West side of Building B	no
Exterior/East side of Building B	yes
Exterior/East side of Building B	yes
Interior/South side of Building A	no
Interior/West side of Building A	no
Interior/North side of Building A	no
Exterior/West side of Building C	no
Interior/South side of Building C	no

Table 4
Asbestos Screening Results

Building/Sample Number	Building Material	Asbestos Content
A/1	Floor tile	5%
A/2	Ceiling tile	ND
A/3	Ceiling panel	ND
A/4	Floor tile	5%
B/1	Floor tile	ND
B/2	Ceiling tile	ND
B/3	Floor tile	5%
B/4	Floor tile	5%
B/5	Sheetrock	ND
B/6	Sheetrock	ND

Notes: ND = not detected

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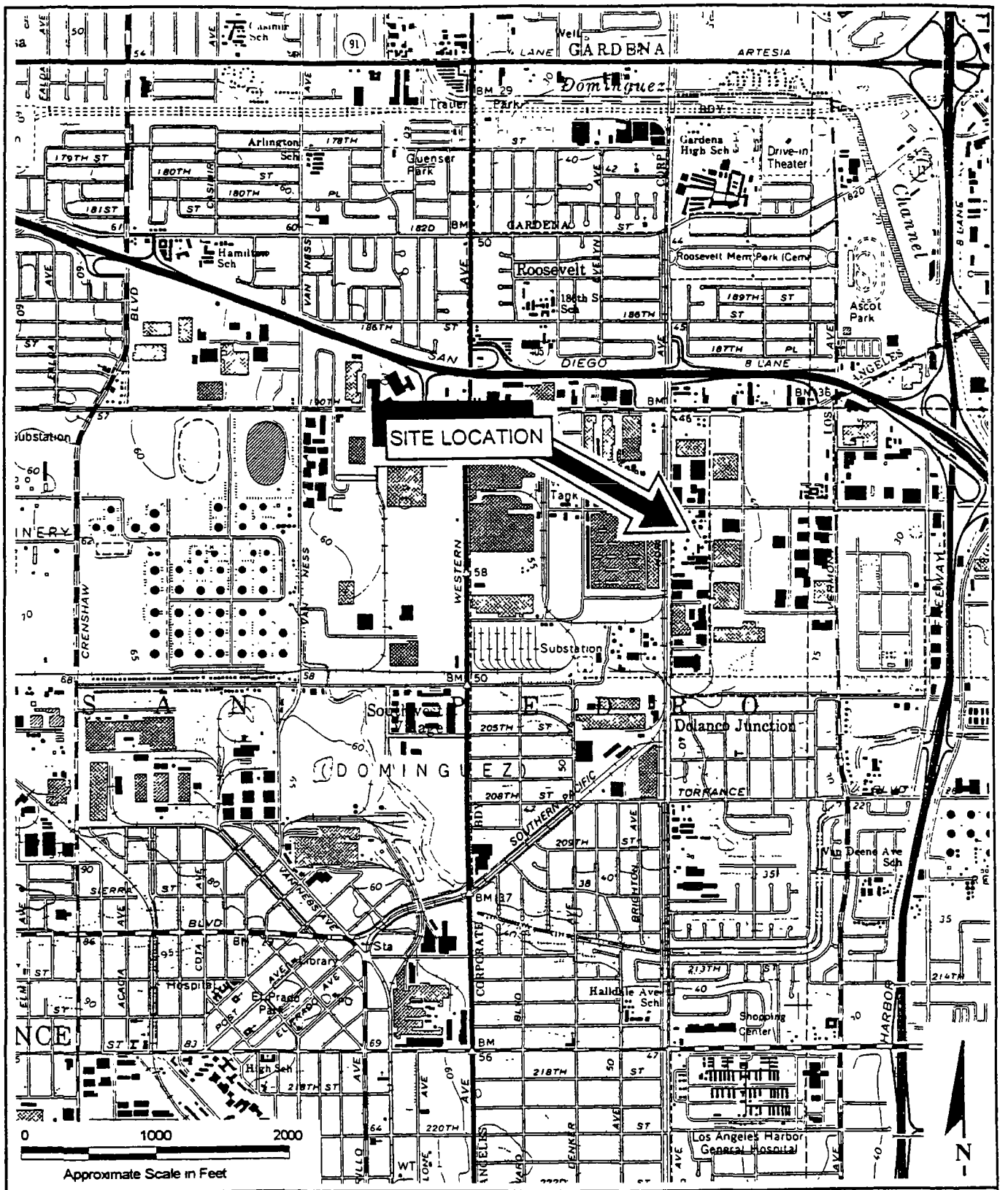
Figures

FIGURES



HARTCROWSER

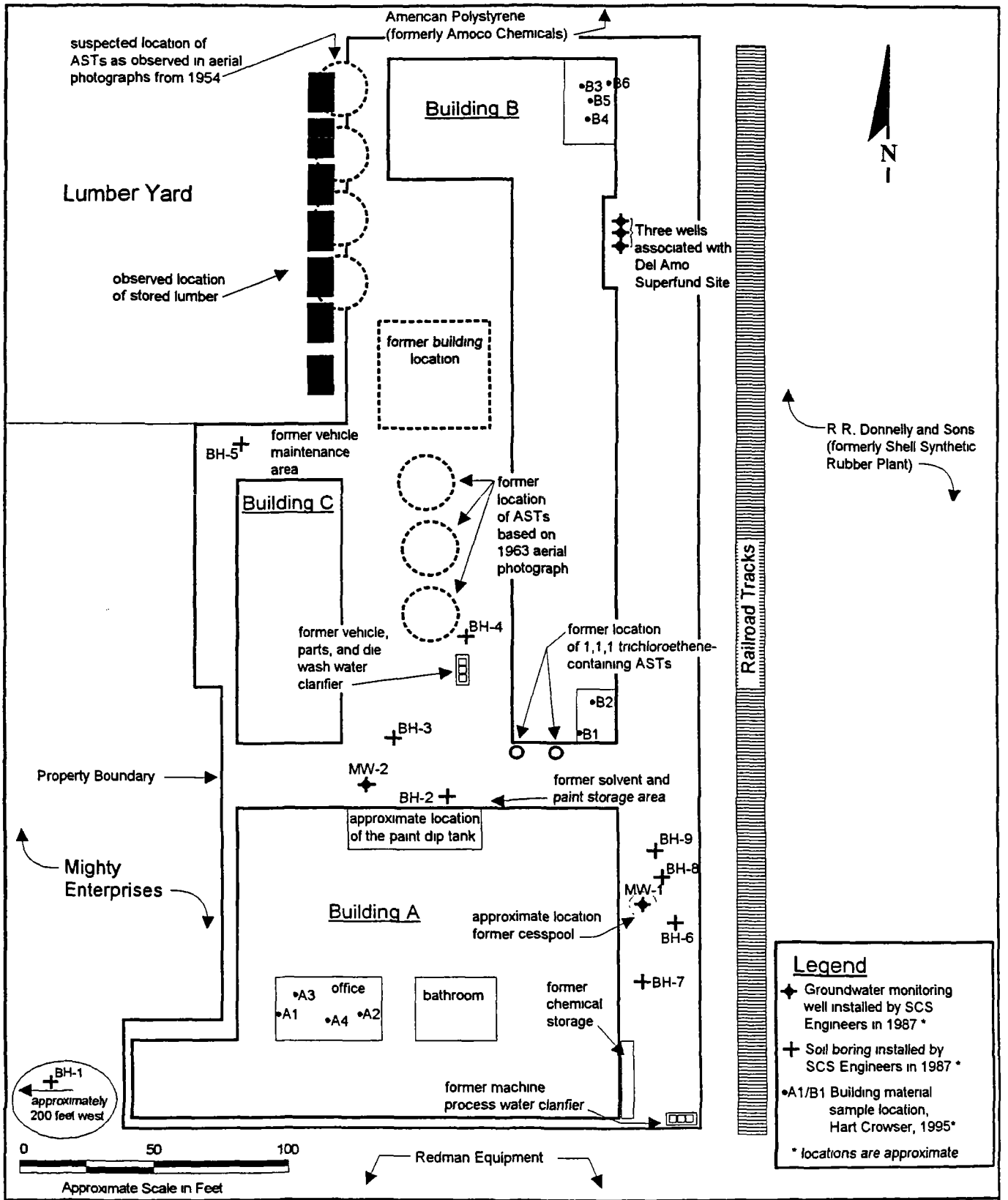
PROJECT NAME: TRICO PSA - TORRANCE

SITE VICINITY MAP
TRICO INDUSTRIES FACILITY
1206 W. 196TH STREET
TORRANCE, CALIFORNIA

FIGURE 1

PROJECT NO.: 6756 | DATE APRIL 1995

PACCAR 00554



HARTCROWSER

PROJECT NAME. TRICO PSA - TORRANCE

SITE PLAN
TRICO INDUSTRIES FACILITY
1206 W. 196TH STREET
TORRANCE, CALIFORNIA

FIGURE 2

PROJECT NO.: 6756 | DATE: APRIL 1995

PACCAR 00555

Appendix A

Hart Crowser, Inc.
J-6756

APPENDIX A
Environmental Risk Information and Imaging Services Report

ERIS

PERTAINING TO: TRICO INDUSTRIES
1206 196TH STREET
TORRANCE, CA 90502

ON BEHALF OF: Hart Crowser, Inc.
1 World Trade Center # 2300
Long Beach, CA 90831-2300

PREPARED ON: 12/27/1994

REPORT NUMBER: 20100A

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ERIIS REPORT OVERVIEW

The following features are available for an ERIIS report:

- Database Report
  - Statistical Profile
  - Database Records
- Related Maps
  - Digital Custom Plotted Map
  - Sanborn Fire Insurance Map(s)
  - Topographical Map(s)

Statistical Profile

The statistical profile is an at-a-glance numeric summary of the databases searched for your ERIIS Report.

Database Records

The detailed federal and state database information indicates potential and actual environmental threats within the study radius. These records are sorted by their distance from the study site.

Digital Custom Map

The digital custom map is cross referenced with the database records. The cross-in-circle in the center of the map represents the study site. The red circles represent distances from the study site. The plottable sites in the report are distinguished on the map by symbols of different shape and color.

Sanborn Fire Insurance Maps

The ERIIS collection of historical Sanborn Fire Insurance Maps covers 14,000 cities and towns. These maps may indicate prior use of the study site. If no maps are available for the study site, a notice to that effect is included. This notice should serve as evidence of due diligence.

Topographical Map

USGS topographical maps show natural and man-made features as well as the shape and elevation of the terrain. The 7.5 minute quad maps are produced at a scale of 1:24,000, or one inch represents 2,000 feet.

If you have any questions about this report,
please contact ERIIS Customer Service at 1-800-989-0402

ERIIS RADIUS STATISTICAL PROFILE
State: CA

ERIIS Report #20100A Dec 22, 1994

Site: TRICO INDUSTRIES
1206 196TH STREET
TORRANCE, CA 90502

Latitude: 33.853651
Longitude: -118.298123

Database	Radius (Mi)	Property	Property-1/4	1/4-1/2	1/2-1	>1	TOTAL
NPL	1	NO	0	1	0		1
RCRIS_TS	1	NO	0	0	2		2
CERCLIS	1	NO	6	2	8		16
RCRIS_LG	1	YES	6	9	19		34
RCRIS_SG	1	NO	5	6	19		30
DOCKET	1	NO	0	1	0		1
TRI	1	NO	4	2	3		9
FRDS	1	NO	0	0	0		0
ERNS	1	NO	0	0	5		5
FINDS	.25	YES	18				18
OPENDUMP		NR	NR	NR	NR	NR	0
CALSITES	1	NO	7	8	20		35
LUST	1	NO	1	2	9		12
SWIS	1	NO	0	0	0		0
UST	1	NO	4	13	47		64
CORTS	1	NO	3	1	8		12
HWIS	1	NO	9	16	29		54
OGW	1	NO	0	0	0		0
SWAT	1	NO	0	0	1		1
WDS	1	NO	1	2	1		4
			64	63	171	0	298

Selection of PROPERTY records requires an accurate street address in the ERIIS job order.

A blank radius count indicates that the database was not searched by this radius per client instructions.

NR in a radius count indicates that the database cannot be reported by this search criteria due to insufficient and/or inaccurate addresses reported by a federal/state agency.

NPL
1 of Data: 09/15/1994
ase Date: 10/04/1994
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
703/603-8881

National Priorities List

The NPL Report, Also Known As The Superfund List, Is An EPA Listing Of Uncontrolled Or Abandoned Hazardous Waste Sites. The List Is Primarily Based Upon A Score Which The Site Receives From The EPA's Hazardous Ranking System. These Sites Are Targeted For Possible Long-Term Remedial Action Under The Superfund Act.

RCRIS_TS
Date of Data. 03/01/1994
Release Date: 05/03/1994
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
202/260-2603

Resource Conservation And Recovery Information System - Treatment, Storage, And Disposal Facilities

The RCRIS_TS Report Contains Information Pertaining To Facilities Which Either Treat, Store, Or Dispose Of Hazardous Waste. Information Pertaining To The Status Of Facilities Tracked By The RCRA Administrative Action Tracking System (RAATS 9/26/94) Is Included In The RCRIS_TS Report.

CERCLIS
Date of Data: 09/15/1994
Release Date: 10/04/1994
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
703/603-8730

Comprehensive Environmental Response, Compensation, And Liability Information System

The CERCLIS List Is A Compilation Of Known Or Suspected Uncontrolled Or Abandoned Hazardous Waste Sites. These Sites Have Either Been Investigated, Or Are Currently Under Investigation By The EPA For The Release, Or Threatened Release Of Hazardous Substances. Once A Site Is Placed In CERCLIS, It May Be Subjected To Several Levels Of Review And Evaluation And Ultimately Placed On The National Priorities List.

RCRIS_LG
Date of Data: 03/01/1994
Release Date: 05/03/1994
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
202/260-2603

Resource Conservation And Recovery Information System - Large Quantity Generators

The RCRIS_LG Report Contains Information Pertaining To Facilities Which Either Generate More Than 1000kg Of Hazardous Waste Per Month Or Meet Other Applicable Requirements Of The Resource Conservation And Recovery Act. Information Pertaining To The Status Of Facilities Tracked By The RCRA Administrative Action Tracking System (RAATS 9/26/94) Is Included In The RCRIS_LG Report.
On Advice Of The US EPA, ERIIS Does Not Report So-Called "RCRA Protective Filers." Protective Filers Are Facilities That Have Completed RCRA Notification Paperwork, But Are Not, In Fact, Subject To RCRA Regulation. This Determination Is Made By The US EPA.

RCRIS_SG
Date of Data: 03/01/1994
Release Date: 05/03/1994
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
202/260-2603

Resource Conservation And Recovery Information System - Small Quantity Generators

The RCRIS_SG Report Contains Information Pertaining To Facilities Which Either Generate Between 100kg And 1000kg Of Hazardous Waste Per Month Or Meet Other Applicable Requirements Of The Resource Conservation And Recovery Act. Information Pertaining To The Status Of Facilities Tracked By The RCRA Administrative Action Tracking System (RAATS 9/26/94) Is Included In The RCRIS_SG Report.
On Advice Of The US EPA, ERIIS Does Not Report So-Called "RCRA Protective Filers." Protective Filers Are Facilities That Have Completed RCRA Notification Paperwork, But Are Not, In Fact, Subject To RCRA Regulation. This Determination Is Made By The US EPA.

DOCKET
Date of Data: 10/20/1994
Release Date: 11/18/1994
US Environmental Protection Agency
Office Of Enforcement
202/260-2614

Civil Enforcement Docket

The Civil Enforcement Docket Is The U.S. Environmental Protection Agency's System For Tracking Civil Judicial Cases Filed On The Agency's Behalf By The Department Of Justice. This Report Contains Information On Cases From 1972 To The Present.

TRI
Date of Data: 12/31/1992
Release Date: 05/01/1994
US Environmental Protection Agency
Office Of Pollution Prevention And Toxics
202/260-3757

Toxic Release Inventory System Of 1992

The TRI Report Contains Information On The Industrial Release And/Or Transfer Of Toxic Chemicals As Reportable Under Title III Of The Superfund Amendments And Reauthorization Act Of 1986 (SARA Title III)

FRDS
Date of Data: 10/28/1994
Release Date: 10/31/1994
US Environmental Protection Agency
Office Of Water/National Data Processing
202/260-2805

Federal Reporting Data System

The Federal Reporting Data System (FRDS) Report Contains Summary Information Pertaining To All Public Water Supply Wells And Their Associated Treatment Facilities.

ERNS
e of Data: 07/01/1994
ase Date: 12/06/1994
Environmental Protection Agency
Office Of Solid Waste And Emergency Response
202/260-2342

Emergency Response Notification System - 1994

ERNS Is A National Computer Database System That Is Used To Store Information On The Sudden And/Or Accidental Release Of Hazardous Substances, Including Petroleum, Into The Environment. The ERNS Reporting System Contains Preliminary Information On Specific Releases, Including The Spill Location, The Substance Released, And The Responsible Party. Please Note That The Information In The ERNS Report Pertains Only To Those Releases That Occured Between January 1, 1994 and June 30, 1994.

FINDS
Date of Data: 07/01/1994
Release Date. 08/03/1994
US Environmental Protection Agency
Office Of Information Resources Management
202/260-4465

Facility Index System

The FINDS Report Is A Computerized Inventory Of All Facilities That Are Regulated Or Tracked By The U.S. Environmental Protection Agency. These Facilities Are Assigned An Identification Number Which Serves As A Cross-Reference For Other Databases In The EPA's Program System Each FINDS Record Indicates The EPA Program Office Which Is Responsible For The Tracking Of The Facility.

OPENDUMP
Date of Data: 01/01/1990
Release Date· 01/01/1991
US Environmental Protection Agency
Office Of Solid Waste And Emergency Response
202/260-4667

Open Dumps Report

The Resource Conservation And Recovery Act Defines The Term "Open Dump" To Mean "...Any Facility Or Site Where Solid Waste Is Disposed Of Which Is Not A Sanitary Landfill Which Meets The Criteria Promulgated Under Section 4004 And Which Is Not A Facility For The Disposal Of Hazardous Waste." Thus, Any Facility Which Fails To Comply With Any One Element Of The Criteria Is Considered To Be An Open Dump.

CALSITES
Date of Data: 04/08/1994
Release Date: 04/27/1994
CA Dept. Of Toxic Substances Control
Site Mitigation Branch/CalSites
916/323-3400

California CalSites

The California Calsites Report Contains Information Pertaining To State Hazardous Waste Sites. Sites Formerly Listed In The Annual Workplan, The Abandoned Sites Project Information System (ASPIS), And The Bond Expenditure Plan (BEP) Are Now Included In The Calsites Database.

LUST
Date of Data: 04/01/1994
Release Date: 07/05/1994
Water Quality Control Board(s)
EPA - Hazardous Materials Data Mgt.
916/445-6532

California Leaking Underground Storage Tank List

The California LUST Report Contains Information Pertaining To Reported Leaking Underground Storage Tanks Within The State Of California. ERIIS Has Obtained The LUST Information From The State EPA And The Regional Water Quality Control Boards. The Dates Of The Information For The Specific Regions Are As Follows:
Region 1 - North Coast Region - 1/07/94
Region 2 - San Fran. Bay Region - 3/03/94
Region 3 - Central Coast Region - 4/05/94
Region 4 - Los Angeles Region - 3/30/94
Region 5 - Central Valley Region - 1/05/94
Region 6 - Lohontan Region - 1/24/94
Region 7 - CO River Basin Region - 9/15/93
Region 8 - Santa Ana Region - 1/21/94
Region 9 - San Diego Region - 12/13/93

SWIS
Date of Data: 03/01/1993
Release Date: 05/12/1993
CA Intergrated Waste Management Board
SWIS Program
916/255-2248

California Solid Waste Information System

The California Solid Waste Information System (SWIS) Report Contains Information Pertaining To All Permitted Active And Inactive Solid Waste Landfills And Processing Facilities Located Within The State Of California.

UST
Date of Data: 03/17/1994
Release Date: 03/21/1994
CA Office Of Environmental Information
Input Systems
800/327-9337

California Underground Storage Tank List

The California UST Report Is A Comprehensive Listing Of All Registered Underground Storage Tanks Located Within The State Of California.

CORTS
Date of Data: 09/01/1990
Release Date: 05/03/1993
CA Dept. Of Toxic Substances Control
Hazardous Materials Data Management
916/327-1848

California Cortese List

The California Cortese List, Also Known As The Hazardous Waste And Substances Sites List, Contains Summary Information Pertaining To Contaminated Sites In The State Of California. Contaminated Wells, Leaking Underground Storage Tanks, And Sanitary Landfills Are Among The Facilities Contained On The Cortese List. Information For This Report Was Extracted From The California Facility Inventory Data System (FIDS) List.

HWIS
Date of Data: 12/23/1993
Release Date: 12/29/1993
CA Dept. Of Toxic Substances Control
Enforcement Branch
916/323-6556

California Hazardous Waste Information System

The California Hazardous Waste Information System Contains Summary Information Pertaining To Facilities That Are Required To Report Their Hazardous Waste Activities With The California EPA Under The Resource Conservation And Recovery Act (RCRA).

OGW
Date of Data: 12/01/1993
Release Date: 05/27/1994
Petroleum Information Corporation

303/740-7100

California Oil and Gas Well Report

The California Oil And Gas Well Data Report Contains Location And Production Information For All Regulated Oil And Gas Wells In The State Of California.

SWAT
Date of Data: 06/03/1994
Release Date: 06/16/1994
CA State Water Resources Control Board

916/227-4448

California Solid Waste Assessment Test

The California Solid Waste Assessment Test Report Contains Information Pertaining To Solid Waste Landfills From Which There Is A Known Migration Of Hazardous Waste. Information For This Report Was Extracted From The California Waste Management Unit Data System (WMUDS).

WDS
Date of Data: 03/12/1994
Release Date: 04/18/1994
CA State Water Resources Control Board
Information Services Office
916/657-1144

California Waste Discharger System

The California Waste Discharger System (WDS) Report Contains Information Pertaining To All Active And Regulated Facilities That Have Been Issued Waste Discharge Permits For The Release Of Waste Water Or Hazardous Waste Into Either An Injection Well Or Surface Water.

ERIIS SUMMARY OF PLOTTABLE SITES

ERIIS Report #20100A Dec 22, 1994

ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007007243	ALPINE FOREIGN CAR SERVICE 19530 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_LG	0.004 Mi	NORTHEAST	7243
06003019462	ALPINE FOREIGN CAR SERVICE 19530 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS	0.004 Mi	NORTHEAST	9462
06008008348	PACIFIC GATEWAY 19524 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_SG	0.008 Mi	NORTHEAST	8348
06003037479	PACIFIC GATEWAY 19524 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS	0.008 Mi	NORTHEAST	7479
06055021114	PACIFIC GATEWAY 19524 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	HWIS	0.008 Mi	NORTHEAST	1114
06003007099	CROSSFIELD PRODUCTS CORP 19514 S NOMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS	0.015 Mi	NORTHEAST	7099
06055012167	CROSSFIELD PRODUCTS CORP 19514 S NOMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	HWIS	0.015 Mi	NORTHEAST	2167
06040006476	CROSSFIELD PRODUCTS CORP (2) 19514 NORMANDIE AVE TORRANCE, CA 90502-1108 COUNTY: LOS ANGELES	CALSITES	0.015 Mi	NORTHEAST	6476
06005006685	DOUGLAS AIRCRAFT CO 19503 NORMANDIE AVE TORRANCE, CA 90502-1185 COUNTY: LOS ANGELES	LUST	0.023 Mi	NORTHEAST	6685
025005100	DOUGLAS AIRCRAFT CO 19503 NORMANDIE AVE TORRANCE, CA 90502-1109 COUNTY: LOS ANGELES	CORTS	0.023 Mi	NORTHEAST	5100
06009000294	DOUGLAS AIRCRAFT CO. 19503 NORMANDIE AVE TORRANCE, CA 90502-1109 COUNTY: LOS ANGELES	TRI	0.023 Mi	NORTHEAST	294
06010017344	DOUGLAS AIRCRAFT COMPANY 19503 S NORMANDIE LOS ANGELES, CA 90502 COUNTY: LOS ANGELES	UST	0.023 Mi	NORTHEAST	7344
06003008307	DOUGLAS AIRCRAFT COMPANY MCDONNELL 19503 NORMANDIE AVE TORRANCE, CA 90502-1185 COUNTY: LOS ANGELES	FINDS	0.023 Mi	NORTHEAST	8307
06010017346	DOUGLAS AIRCRAFT TORRANCE 19503 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	UST	0.023 Mi	NORTHEAST	7346
06001003048	MCDONNELL - DOUGLAS AIRCRAFT 19503 NORMANDIE AVE. S. TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.023 Mi	NORTHEAST	3048
06001000522	LAWSON ENTERPRISES INC 19500 S NORMANIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.025 Mi	NORTHEAST	522
06007001480	LAWSON ENTERPRISES INC 19500 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_LG	0.025 Mi	NORTHEAST	1480
06003002682	LAWSON ENTERPRISES INCORPORATED 19500 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS	0.025 Mi	NORTHEAST	2682
040006654	LAWSON ENTERPRISES, INC 19500 SOUTH NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.025 Mi	NORTHEAST	6654
06007002453	AMERICAN POLYSTYRENE CORP 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	RCRIS_LG	0.065 Mi	SOUTHEAST	2453

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ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
03005084	AMERICAN POLYSTYRENE CORP 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	FINDS	0.065 Mi	SOUTHEAST	5084
06009000295	AMOCO CHEMICAL CO. 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	TRI	0 065 Mi	SOUTHEAST	295
06001000759	AMOCO CHEMICALS CORP 1225 W 196TH STREET TORRANCE, CA 90504 COUNTY: LOS ANGELES	CERCLIS	0.065 Mi	SOUTHEAST	759
06040007247	AMOCO CHEMICALS CORP (2) 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	CALSITES	0.065 Mi	SOUTHEAST	7247
06055011444	AMOCO CHEMS CORP 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	HWIS	0 065 Mi	SOUTHEAST	1444
06025006258	AMOCO CHEMICALS CORP (2) 1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	CORTS	0.066 Mi	SOUTHEAST	6258
06040009025	B & W INC 1206 W 196TH ST TORRANCE, CA 90502-1101 COUNTY: LOS ANGELES	CALSITES	0.073 Mi	SOUTHEAST	9025
06009000297	TRICO IND INC. 1206 W 196TH ST TORRANCE, CA 90502-1101 COUNTY: LOS ANGELES	TRI	0.073 Mi	SOUTHEAST	297
06001003050	TRICO INDUSTRIES 1206 WEST 196TH STREET TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.073 Mi	SOUTHEAST	3050
03052775	TRICO INDUSTRIES INC 1206 W 196TH ST TORRANCE, CA 90502-1101 COUNTY: LOS ANGELES	FINDS	0 073 Mi	SOUTHEAST	2775
06008003009	TRICO INDUSTRIES 19706 NORMANDIE AVE TORRANCE, CA 90502-1111 COUNTY: LOS ANGELES	RCRIS_SG	0.128 Mi	SOUTHEAST	3009
06003020190	TRICO INDUSTRIES 19706 NORMANDIE AVE TORRANCE, CA 90502-1111 COUNTY: LOS ANGELES	FINDS	0.128 Mi	SOUTHEAST	190
06025004432	TRICO INDUSTRIES 19706 NORMANDIE AVE TORRANCE, CA 90502-1111 COUNTY· LOS ANGELES	CORTS	0.128 Mi	SOUTHEAST	4432
06055016314	TRICO INDUSTRIES 19706 NORMANDIE AVE TORRANCE, CA 90502-1111 COUNTY LOS ANGELES	HWIS	0.128 Mi	SOUTHEAST	6314
06040008465	PERMABILT INDUSTRIES 19306 NORMANDIE AVE TORRANCE, CA 90502-1012 COUNTY: LOS ANGELES	CALSITES	0.143 Mi	NORTHEAST	8465
06007000563	REDMAN EQUIPMENT & MFG CO 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY: LOS ANGELES	RCRIS_LG	0.164 Mi	SOUTHEAST	563
06003001048	REDMAN EQUIPMENT & MFG CO 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY: LOS ANGELES	FINDS	0.164 Mi	SOUTHEAST	1048
06055009892	REDMAN EQUIPMENT & MFG CO 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY: LOS ANGELES	HWIS	0.164 Mi	SOUTHEAST	9892
J10045502	REDMAN EQUIPMENT MANUFACTURING 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY. LOS ANGELES	UST	0.164 Mi	SOUTHEAST	5502
06041002023	TORRANCE HEAT EXCHANGER MFG&RP 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY LOS ANGELES	WDS	0.164 Mi	SOUTHEAST	2023

ERIIS Report #20100A Dec 22, 1994

ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
J03005727	GERON FURNITURE 19808 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS	0.167 Mi	SOUTHEAST	5727
06055015545	COMPUTER IMAGE SYSTEMS 19220 NORMANDIE AVE TORRANCE, CA 90502-1011 COUNTY: LOS ANGELES	HWIS	0.183 Mi	NORTHEAST	5545
06001000517	TYLAN CORP 19220 NORMANDIE AVE TORRANCE, CA 90502-1011 COUNTY: LOS ANGELES	CERCLIS	0.183 Mi	NORTHEAST	517
06003002647	TYLAN CORP 19220 NORMANDIE AVE TORRANCE, CA 90502-1011 COUNTY: LOS ANGELES	FINDS	0.183 Mi	NORTHEAST	2647
06040009364	TYLAN CORPORATION 19220 NORMANDIE AVE TORRANCE, CA 90502-1011 COUNTY: LOS ANGELES	CALSITES	0.183 Mi	NORTHEAST	9364
06008001846	QUANTRAD CORP 19900 NORMANDIE AVE TORRANCE, CA 90502-1113 COUNTY: LOS ANGELES	RCRIS_SG	0.203 Mi	SOUTHEAST	1846
06003015669	QUANTRAD CORP 19900 NORMANDIE AVE TORRANCE, CA 90502-1113 COUNTY: LOS ANGELES	FINDS	0.203 Mi	SOUTHEAST	5669
06040005891	QUANTRAD CORPORATION 19900 SOUTH NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.203 Mi	SOUTHEAST	5891
06008004531	TRW INC 1111 KNOX ST TORRANCE, CA 90502-1034 COUNTY: LOS ANGELES	RCRIS_SG	0.216 Mi	NORTHEAST	4531
/03026029	TRW INCORPORATED 1111 KNOX ST TORRANCE, CA 90502-1034 COUNTY: LOS ANGELES	FINDS	0.216 Mi	NORTHEAST	6029
06055007032	1X RSI HOME PRODUCTS 19106 NORMANDIE AVE TORRANCE, CA 90502-1010 COUNTY: LOS ANGELES	HWIS	0.236 Mi	NORTHEAST	7032
06003001717	PERMA BILT INDUSTRIES 19106 NORMANDIE AVE TORRANCE, CA 90502-1010 COUNTY: LOS ANGELES	FINDS	0.236 Mi	NORTHEAST	1717
06007000960	PERMA-BILT INDUSTRIES# 19106 NORMANDIE AVE TORRANCE, CA 90502-1010 COUNTY: LOS ANGELES	RCRIS_LG	0.236 Mi	NORTHEAST	960
06055017258	APPLIED GRAPHICS TECHNOLOGIES,L.P. 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116 COUNTY: LOS ANGELES	HWIS	0.245 Mi	SOUTHEAST	7258
06003009116	DONNELLEY R R AND SONS COMPANY 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FINDS	0.245 Mi	SOUTHEAST	9116
06001001201	INTERWEB/RR DONNELLEY & SONS CO 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.245 Mi	SOUTHEAST	1201
06007008652	PUBLISHER PHOTOTYPE INC 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	RCRIS_LG	0.245 Mi	SOUTHEAST	8652
06003023593	PUBLISHER PHOTOTYPE INC 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FINDS	0.245 Mi	SOUTHEAST	3593
055012828	R R DONNELLEY & SONS CO 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116 COUNTY: LOS ANGELES	HWIS	0.245 Mi	SOUTHEAST	2828
06010044614	R R DONNELLEY & SONS COMPANY 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116 COUNTY: LOS ANGELES	UST	0.245 Mi	SOUTHEAST	4614

ERIIS Report #20100A Dec 22, 1994

ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
J08000811	R R DONNELLEY AND SONS CO L A DIV 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	RCRIS_SG	0.245 Mi	SOUTHEAST	811
06003035269	R&R DONNELLY & SONS 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FINDS	0.245 Mi	SOUTHEAST	5269
06009000298	R. R. DONNELLEY & SONS CO 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116 COUNTY: LOS ANGELES	TRI	0.245 Mi	SOUTHEAST	298
06003048367	R R. DONNELLEY & SONS CO. 19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FINDS	0.245 Mi	SOUTHEAST	8367
06040007004	KENITEX CHEMICALS INC 1234 FRANCISCO ST TORRANCE, CA 90502-1206 COUNTY: LOS ANGELES	CALSITES	0.259 Mi	SOUTHEAST	7004
06008007615	PULSE INSTRUMENTS 1234 FRANCISCO ST TORRANCE, CA 90502-1200 COUNTY: LOS ANGELES	RCRIS_SG	0.259 Mi	SOUTHEAST	7615
06055020269	PULSE INSTRUMENTS 1234 FRANCISCO ST TORRANCE, CA 90502-1206 COUNTY: LOS ANGELES	HWIS	0.259 Mi	SOUTHEAST	269
06055028419	CORCOM 1201 FRANCISCO ST TORRANCE, CA 90502-1207 COUNTY: LOS ANGELES	HWIS	0.263 Mi	SOUTHEAST	8419
06040005667	MENARDI & COMPANY (2) 1201 WEST FRANCISCO TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.263 Mi	SOUTHEAST	5667
J08005477	HYDRO RUBBER & PLASTIC INC 1200 FRANCISCO ST TORRANCE, CA 90502-1206 COUNTY: LOS ANGELES	RCRIS_SG	0.265 Mi	SOUTHEAST	5477
06055018731	HYDRO RUBBER & PLASTIC INC 1200 FRANCISCO ST TORRANCE, CA 90502-1206 COUNTY: LOS ANGELES	HWIS	0.265 Mi	SOUTHEAST	8731
06007015006	TRI-LITE MFG CO INC 19780 PACIFIC GATEWAY DR TORRANCE, CA 90502-1137 COUNTY: LOS ANGELES	RCRIS_LG	0.265 Mi	SOUTHEAST	5006
06055036089	TRI-LITE MFG CO INC 19780 PACIFIC GATEWAY DR TORRANCE, CA 90502-1131 COUNTY. LOS ANGELES	HWIS	0.265 Mi	SOUTHEAST	6089
06009000298	TRI-LITE MFG. CO INC. 19780 PACIFIC GATEWAY DR TORRANCE, CA 90502-1131 COUNTY: LOS ANGELES	TRI	0.265 Mi	SOUTHEAST	298
06005009175	GREEN'S READY MIXED CONCRETE 19030 NORMANDIE AVE TORRANCE, CA 90502-1009 COUNTY: LOS ANGELES	LUST	0.271 Mi	NORTHEAST	9175
06010024695	GREENE'S READY MIX CONCRETE 19030 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	UST	0.271 Mi	NORTHEAST	4695
06041001715	READY-MIXED CONCRETE PLANT 19030 NORMANDIE AVE TORRANCE, CA 90502-1009 COUNTY: LOS ANGELES	WDS	0.271 Mi	NORTHEAST	1715
06007004767	PACIFIC BELL 19310 PACIFIC GATEWAY DR RM111 TORRANCE, CA 90502-1031 COUNTY· LOS ANGELES	RCRIS_LG	0 273 Mi	NORTHEAST	4767
010059687	VANITY MARBLE DIVISION 19301 PACIFIC GATEWAY DR TORRANCE, CA 90502-1017 COUNTY LOS ANGELES	UST	0.274 Mi	NORTHEAST	9687
06010059688	VANITY/MARBLE DIVISION 19301 PACIFIC GATEWAY DR TORRANCE, CA 90502-1017 COUNTY LOS ANGELES	UST	0.274 Mi	NORTHEAST	9688

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08008638	COMPUTER IMAGE SYSTEMS INC 20030 NORMANDIE AVE TORRANCE, CA 90502-1210 COUNTY: LOS ANGELES	RCRIS_SG	0.277 Mi	SOUTHEAST	8638
08010013715	COCA COLA LOS ANGELES 19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118 COUNTY: LOS ANGELES	UST	0.288 Mi	SOUTHEAST	3715
08007012600	COCA COLA TORRANCE 19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118 COUNTY: LOS ANGELES	RCRIS_LG	0.288 Mi	SOUTHEAST	2600
08055022014	COCA COLA TORRANCE 19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118 COUNTY: LOS ANGELES	HWIS	0.288 Mi	SOUTHEAST	2014
08010017343	DOUGLAS AIRCRAFT CO 190TH & NORMANDIE TORRANCE, CA 90502	UST	0.308 Mi	NORTHEAST	7343
08007003900	DOUGLAS AIRCRAFT COMPANY 190TH STREET & NORMANDIE AVENU TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_LG	0.308 Mi	NORTHEAST	3900
08041001663	TORRANCE FACILITY 190TH ST & NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	WDS	0.308 Mi	NORTHEAST	1663
08055020550	MAZAK SALES & SERVICE WEST 1333 W 190TH ST GARDENA, CA 90248-4306 COUNTY: LOS ANGELES	HWIS	0.314 Mi	NORTHWEST	550
08010010421	CENTRAL SECURITY PATROL 1201 W 190TH ST GARDENA, CA 90248-4304 COUNTY: LOS ANGELES	UST	0 332 Mi	NORTHEAST	421
55007632	1X HALFERTY CO 1411 W 190TH ST STE 675 GARDENA, CA 90248-4327 COUNTY: LOS ANGELES	HWIS	0.355 Mi	NORTHWEST	7632
08010038441	N.E.C. 1411 W 190TH ST GARDENA, CA 90248-4324 COUNTY: LOS ANGELES	UST	0.355 Mi	NORTHWEST	8441
08005018178	SOUTH BAY CORP 1411 190TH ST., W. GARDENA, CA 90248 COUNTY: LOS ANGELES	LUST	0.355 Mi	NORTHWEST	8178
08007000543	MONTROSE CHEM CORP OF CA 20201 S NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_LG	0.368 Mi	SOUTHWEST	543
08057000005	MONTROSE CHEMICAL CORP 20201 S NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	NPL	0.368 Mi	SOUTHWEST	5
08055019901	HEIDELBERG WEST INC 19730 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY: LOS ANGELES	HWIS	0.370 Mi	SOUTHEAST	9901
08040009170	RISTO-LOS ANGELES 1441 W 190TH ST GARDENA, CA 90248-4307 COUNTY: LOS ANGELES	CALSITES	0.373 Mi	NORTHWEST	9170
08040008640	DUMAY LABORATORIES INC 19750 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY: LOS ANGELES	CALSITES	0.373 Mi	SOUTHEAST	8640
08010028852	JEAN PIERRE PRODUCTS INC 19750 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY. LOS ANGELES	UST	0 373 Mi	SOUTHEAST	8852
110028853	JEAN PIERRE PRODUCTS, INC 19750 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY LOS ANGELES	UST	0.373 Mi	SOUTHEAST	8853
08007003964	ATLAS LIGHTING 20200 NORMANDIE AVE TORRANCE, CA 90502-1212 COUNTY· LOS ANGELES	RCRIS_LG	0 375 Mi	SOUTHWEST	3964

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40009561	ATLAS LIGHTING INC 20200 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.375 Mi	SOUTHWEST	9561
06055008887	1X DEPT OF COMMERCE - NOAA 20201 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	HWIS	0.376 Mi	SOUTHWEST	8887
06040006077	MONTROSE CHEMICAL CORP 20201 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.376 Mi	SOUTHWEST	6077
06080000010	MONTROSE CHEMICAL CORP OF CA D 20201 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	DOCKET	0.376 Mi	SOUTHWEST	10
06055009874	MONTROSE CHEMICAL CORP OF CALIFORNIA 20201 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	HWIS	0.376 Mi	SOUTHWEST	9874
06025004200	MONTROSE CHEMICAL 20201 NORMANDIE AVE TORRANCE, CA 90502-1213 COUNTY: LOS ANGELES	CORTS	0.377 Mi	SOUTHWEST	4200
06055010594	ACE CLEANWATER ENTERPRISE 19815 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY: LOS ANGELES	HWIS	0.380 Mi	SOUTHEAST	594
06007011753	ACE CLEARWATER ENTERPRISES 19815 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY: LOS ANGELES	RCRIS_LG	0.380 Mi	SOUTHEAST	1753
06055020775	ACE CLEARWATER ENTERPRISES 19815 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY: LOS ANGELES	HWIS	0.380 Mi	SOUTHEAST	775
10028815	JAUELIN ELECTRONICS 19831 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY: LOS ANGELES	UST	0.383 Mi	SOUTHEAST	8815
06008005683	HOYA LENS OF AMERICA INC 970 KNOX ST TORRANCE, CA 90502-1098 COUNTY: LOS ANGELES	RCRIS_SG	0.401 Mi	NORTHEAST	5683
06040007397	ACRO TECH MACHINE CO 1125 W 190TH ST GARDENA, CA 90248-4337 COUNTY: LOS ANGELES	CALSITES	0.404 Mi	NORTHEAST	7397
06010040543	OVERTON MOORE & ASSOCIATES INC 1125 W 190TH ST GARDENA, CA 90248-4337 COUNTY: LOS ANGELES	UST	0.404 Mi	NORTHEAST	543
06008010403	RALPHS PRINTING INC 1115 W 190TH ST GARDENA, CA 90248-4303 COUNTY: LOS ANGELES	RCRIS_SG	0.413 Mi	NORTHEAST	403
06010020652	FERRO UNION INC 1000 W FRANCISCO TORRANCE, CA 90502 COUNTY: LOS ANGELES	UST	0.422 Mi	SOUTHEAST	652
06007011990	MARITZ COMMUNICATIONS CO 1515 W 190TH ST GARDENA, CA 90248-4319 COUNTY: LOS ANGELES	RCRIS_LG	0.427 Mi	NORTHWEST	1990
06055021076	MARITZ COMMUNICATIONS CO 1515 W 190TH ST GARDENA, CA 90248-4319 COUNTY. LOS ANGELES	HWIS	0 427 Mi	NORTHWEST	1076
06040006185	JONES CHEMICAL 1401 DEL AMO BLVD TORRANCE, CA 90501-1630 COUNTY LOS ANGELES	CALSITES	0.456 Mi	SOUTHWEST	6185
301000297	JONES CHEMICALS INC 1401 DEL AMO BLVD TORRANCE, CA 90501-1630 COUNTY: LOS ANGELES	CERCLIS	0.456 Mi	SOUTHWEST	297
06007000877	JONES CHEMICALS INC 1401 DEL AMO BLVD TORRANCE, CA 90501-1699 COUNTY: LOS ANGELES	RCRIS_LG	0 456 Mi	SOUTHWEST	877

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J55010151	JONES CHEMICALS INC 1401 DEL AMO BLVD TORRANCE, CA 90501-1630 COUNTY: LOS ANGELES	HWIS	0.456 Mi	SOUTHWEST	151
06009000317	JONES CHEMICALS INC. 1401 DEL AMO BLVD TORRANCE, CA 90501-1630 COUNTY. LOS ANGELES	TRI	0.456 Mi	SOUTHWEST	317
06055020136	FARMER BROS CO 20333 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	HWIS	0.460 Mi	SOUTHWEST	136
06001003055	FARMER BROS. CO 20333 S NORMANDIE AVE. TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.460 Mi	SOUTHWEST	3055
06010020340	FARMER BROTHERS COMPANY 20333 S NORMANDIE TORRANCE, CA 90509 COUNTY: LOS ANGELES	UST	0.460 Mi	SOUTHWEST	340
06055030797	R R DONNELLEY & SONS COMPANY 19603 S VERMONT AVE TORRANCE, CA 90502-1123 COUNTY: LOS ANGELES	HWIS	0.489 Mi	SOUTHEAST	797
06008018387	ADVANTAGE CARE TORRANCE 19401 S VERMONT AVE TORRANCE, CA 90502-1029 COUNTY: LOS ANGELES	RCRIS_SG	0.498 Mi	NORTHEAST	8387
06010026714	HOLIDAY INN INC 19800 S VERMONT AVE TORRANCE, CA 90502-1126 COUNTY. LOS ANGELES	UST	0.506 Mi	SOUTHEAST	6714
06040007934	ALUMA SERVICES 1015 3/4 W 190TH ST GARDENA, CA 90248-4302 COUNTY: LOS ANGELES	CALSITES	0.512 Mi	NORTHEAST	7934
/07002366	TELEDYNE SPRAGUE ENGINEERING 19300 S VERMONT AVE GARDENA, CA 90248-4415 COUNTY: LOS ANGELES	RCRIS_LG	0.512 Mi	NORTHEAST	2366
06055011385	TELEDYNE SPRAGUE ENGINEERING 19300 S VERMONT AVE GARDENA, CA 90248-4415 COUNTY: LOS ANGELES	HWIS	0.512 Mi	NORTHEAST	1385
06040006652	GREENO CO 19234 S VERMONT AVE GARDENA, CA 90248-4414 COUNTY: LOS ANGELES	CALSITES	0.524 Mi	NORTHEAST	6652
06010002621	AMELCO ELECTRIC 19208 S VERMONT AVE GARDENA, CA 90248-4414 COUNTY: LOS ANGELES	UST	0.529 Mi	NORTHEAST	2621
06040006620	NAUGATUCK CHEMICAL 19201 S VERMONT AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.529 Mi	NORTHEAST	6620
06010038929	NEW YORK LIFE INS CO 19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY: LOS ANGELES	UST	0.531 Mi	NORTHEAST	8929
06005013662	NEW YORK LIFE INSURANCE CO. 19191 VERMONT AVE., S. LOS ANGELES COUNTY, CA 90502 COUNTY: LOS ANGELES	LUST	0 531 Mi	NORTHEAST	3662
06010040612	P & M REALTY GROUP 19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY: LOS ANGELES	UST	0 531 Mi	NORTHEAST	612
06008004529	TRW INC 19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY: LOS ANGELES	RCRIS_SG	0.531 Mi	NORTHEAST	4529
J10030080	JOSTO INC 1645 W 190TH ST GARDENA, CA 90248-4309 COUNTY: LOS ANGELES	UST	0.536 Mi	NORTHWEST	80
06010041572	PACIFIC GATEWAY IV 990 W 190TH ST TORRANCE, CA 90502-1046 COUNTY LOS ANGELES	UST	0.547 Mi	NORTHEAST	1572

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40010116	GOER MANUFACTURING CO INC WEST 19100 S VERMONT AVE GARDENA, CA 90248-4413 COUNTY. LOS ANGELES	CALSITES	0 553 Mi	NORTHEAST	116
06007003102	GOER MFG CO INC 19100 S VERMONT AVE GARDENA, CA 90248-4413 COUNTY: LOS ANGELES	RCRIS_LG	0.553 Mi	NORTHEAST	3102
06001000915	GOER MFG CO INC WEST 19100 S VERMONT AVE GARDENA, CA 90248 COUNTY. LOS ANGELES	CERCLIS	0.553 Mi	NORTHEAST	915
06055003632	1X PRENTISS PROPERTIES 970 W 190TH ST TORRANCE, CA 90502-1000 COUNTY LOS ANGELES	HWIS	0.556 Mi	NORTHEAST	3632
06007002454	CHEM PRO LABORATORY INC 941 W 190TH ST GARDENA, CA 90248-4398 COUNTY. LOS ANGELES	RCRIS_LG	0.570 Mi	NORTHEAST	2454
06008009562	USHIO AMERICA INC 20101 S VERMONT AVE TORRANCE, CA 90502-1328 COUNTY: LOS ANGELES	RCRIS_SG	0.588 Mi	SOUTHEAST	9562
06001000628	INTEL LIGHT METALS CORP 19200 S WESTERN AVE TORRANCE, CA 90501 COUNTY: LOS ANGELES	CERCLIS	0.597 Mi	NORTHWEST	628
06055011061	INTERNATIONAL LIGHT METAL CORP 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY· LOS ANGELES	HWIS	0.597 Mi	NORTHWEST	1061
06040007976	INTERNATIONAL LIGHT METALS 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY: LOS ANGELES	CALSITES	0.597 Mi	NORTHWEST	7976
10027787	INTERNATIONAL LIGHT METALS 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY· LOS ANGELES	UST	0.597 Mi	NORTHWEST	7787
06001003062	MARTIN MARIETTA ALUMINUM INC 19200 S. WESTERN AVE. TORRANCE, CA 90509 COUNTY: LOS ANGELES	CERCLIS	0.597 Mi	NORTHWEST	3062
06013000104	MARTIN MARIETTA CORP 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY: LOS ANGELES	RCRIS_TS	0.597 Mi	NORTHWEST	104
06009000324	MARTIN MARIETTA TECHNOLOG 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY: LOS ANGELES	TRI	0.597 Mi	NORTHWEST	324
06055009612	NORTHROP CORP-AIRCRAFT DIV 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY. LOS ANGELES	HWIS	0.597 Mi	NORTHWEST	9612
06041001750	TORRANCE FACILITY 19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY: LOS ANGELES	WDS	0.597 Mi	NORTHWEST	1750
06010003031	ANDREX DEVELOPMENT CO 18880 S VERMONT AVE GARDENA, CA 90248-4111 COUNTY: LOS ANGELES	UST	0 607 Mi	NORTHEAST	3031
06055023818	EXXON RAS #7-3944 18526 S NORMANDIE AVE GARDENA, CA 90248-4006 COUNTY· LOS ANGELES	HWIS	0.620 Mi	NORTHWEST	3818
06025004829	TOYOTA MOTOR SALES 19001 WESTERN AVENUE S TORRANCE, CA 90509 COUNTY. LOS ANGELES	CORTS	0.632 Mi	NORTHWEST	4829
05019824	TOYOTA MOTOR SALES 19001 WESTERN AVE S TORRANCE, CA 90509 COUNTY: LOS ANGELES	LUST	0.633 Mi	NORTHWEST	9824
06055018167	TOYOTA MOTOR SALES USA INC 19001 S WESTERN AVE TORRANCE, CA 90501-1106 COUNTY· LOS ANGELES	HWIS	0.633 Mi	NORTHWEST	8167

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10055974	TOYOTA MOTOR SALES, U S.A. 19001 S WESTERN AVE TORRANCE, CA 90501-1106 COUNTY: LOS ANGELES	UST	0 633 Mi	NORTHWEST	5974
06010060145	VIRCO MANUFACTURING CORP 1331 W TORRANCE TORRANCE, CA 90501 COUNTY: LOS ANGELES	UST	0.638 Mi	SOUTHWEST	145
06055002725	1X PERCY ALEXANDER 1017 W 204TH ST TORRANCE, CA 90502-1441 COUNTY: LOS ANGELES	HWIS	0.640 Mi	SOUTHEAST	2725
06008005300	LEES AUTO SHOP 20530 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_SG	0.640 Mi	SOUTHWEST	5300
06010009676	CAPITAL METALS PROCESSING 20000 S WESTERN AVE TORRANCE, CA 90501-1305 COUNTY: LOS ANGELES	UST	0.659 Mi	SOUTHWEST	9676
06009000288	CAPITOL METALS PROCESSING 20000 S WESTERN AVE TORRANCE, CA 90501-1305 COUNTY· LOS ANGELES	TRI	0.659 Mi	SOUTHWEST	288
06007007438	CAPITOL METALS PROCESSING,INC 20000 S WESTERN AVE TORRANCE, CA 90501-1381 COUNTY: LOS ANGELES	RCRIS_LG	0.659 Mi	SOUTHWEST	7438
06055035506	TOYOTA TECHNICAL CENTER 1850 W 195TH ST TORRANCE, CA 90501-1111 COUNTY· LOS ANGELES	HWIS	0.663 Mi	NORTHWEST	5506
06010027576	INDEPENDENT ARCO STATION 1805 W 190TH ST TORRANCE, CA 90504-6201 COUNTY. LOS ANGELES	UST	0.668 Mi	NORTHWEST	7576
10033759	LOS ANGELES PAPERSTOCK 20502 S DENKER LOS ANGELES, CA 90501 COUNTY: LOS ANGELES	UST	0.688 Mi	SOUTHWEST	3759
06010043271	PIONEER PAPER STOCK DIV 20502 S DENKER TORRANCE, CA 90501 COUNTY: LOS ANGELES	UST	0.688 Mi	SOUTHWEST	3271
06010043225	PINETREE SERVICE CORPORATION 18602 S VERMONT AVE GARDENA, CA 90248-4107 COUNTY· LOS ANGELES	UST	0.696 Mi	NORTHEAST	3225
06010003030	ANDREX CORPORATION 18600 S VERMONT AVE GARDENA, CA 90248-4107 COUNTY: LOS ANGELES	UST	0.697 Mi	NORTHEAST	3030
06007010489	DEL AMO HAZARDOUS WASTE SITE VERMONT AVE AT DEL AMO BLVD TORRANCE, CA 90502 COUNTY· LOS ANGELES	RCRIS_LG	0.711 Mi	SOUTHEAST	489
06040005605	RECONSTRUCTION FINANCE CORP - DOW VERMONT & DEL AMO TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.711 Mi	SOUTHEAST	5605
06025004457	UNKNOWN VERMONT AVE AT DEL AMO BLVD LOS ANGELES, CA 90502 COUNTY. LOS ANGELES	CORTS	0.711 Mi	SOUTHEAST	4457
06055002497	1X SERVALL PKG IND 20550 DENKER AVE TORRANCE, CA 90501-1645 COUNTY: LOS ANGELES	HWIS	0.713 Mi	SOUTHWEST	2497
06007012556	TOYOTA TECHNICAL CENTER 1630 W 186TH ST GARDENA, CA 90248-3898 COUNTY: LOS ANGELES	RCRIS_LG	0.721 Mi	NORTHWEST	2556
J10056004	TOYOTA TECHNICAL CENTER USA IN 1630 W 186TH ST GARDENA, CA 90248-3807 COUNTY: LOS ANGELES	UST	0.721 Mi	NORTHWEST	6004
06010047521	RUBBER TECK 19115 S HAMILTON AVE GARDENA, CA 90248-4401 COUNTY· LOS ANGELES	UST	0.726 Mi	NORTHEAST	7521

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..01000351	RUBBER TECK INC 19115 S HAMILTON ST GARDENA, CA 90248 COUNTY: LOS ANGELES	CERCLIS	0.726 Mi	NORTHEAST	351
06007001050	RUBBER TECK INC 19115 S HAMILTON AVE GARDENA, CA 90248-4492 COUNTY: LOS ANGELES	RCRIS_LG	0.726 Mi	NORTHEAST	1050
06040007390	RUBBER TECK INC 19115 HAMILTON STREET GARDENA, CA 90248 COUNTY: LOS ANGELES	CALSITES	0.726 Mi	NORTHEAST	7390
06055010292	RUBBER TECK INC 19115 S HAMILTON AVE GARDENA, CA 90248-4401 COUNTY: LOS ANGELES	HWIS	0.726 Mi	NORTHEAST	292
06001000372	WESTERN CONCRETE STRUCTURE 19113 S HAMILTON AVE GARDENA, CA 90248 COUNTY· LOS ANGELES	CERCLIS	0.726 Mi	NORTHEAST	372
06040007701	WESTERN CONCRETE STRUCTURE, INC 19113 S HAMILTON AVE GARDENA, CA 90248-4401 COUNTY: LOS ANGELES	CALSITES	0.726 Mi	NORTHEAST	7701
06025006230	RUBBER TECK, INC 19115 S HAMILTON AVE GARDENA, CA 90248-4401 COUNTY: LOS ANGELES	CORTS	0.727 Mi	NORTHEAST	6230
06010041711	PACIFIC VAN & STORAGE CO INC 1415 W TORRANCE TORRANCE, CA 90501 COUNTY: LOS ANGELES	UST	0.735 Mi	SOUTHWEST	1711
06040010240	SOUTHERN CALIFORNIA DISPOSAL 186TH STREET & VERMONT AVENUE GARDENA, CA 90248 COUNTY: LOS ANGELES	CALSITES	0.738 Mi	NORTHEAST	240
24000883	SOUTHERN CALIFORNIA DISPOSAL COMPANY 186TH & VERMONT GARDENA, CA 00000 COUNTY: FRESNO	SWAT	0.738 Mi	NORTHEAST	883
06025004837	UNOCAL STATION #6075 1875 190TH STREET W TORRANCE, CA 90504 COUNTY: LOS ANGELES	CORTS	0.741 Mi	NORTHWEST	4837
06005020880	UNOCAL #6075 1875 190TH ST W TORRANCE, CA 90504 COUNTY: LOS ANGELES	LUST	0.742 Mi	NORTHWEST	880
06010058657	UNOCAL SERVICE STATION 6075 1875 W 190TH ST TORRANCE, CA 90504-6201 COUNTY. LOS ANGELES	UST	0.742 Mi	NORTHWEST	8657
06055021463	UNOCAL SS 6075 1875 W 190TH ST TORRANCE, CA 90504-6201 COUNTY: LOS ANGELES	HWIS	0.742 Mi	NORTHWEST	1463
06010047107	ROMAR BUILDING CORP 18726 S WESTERN AVE GARDENA, CA 90248-3813 COUNTY: LOS ANGELES	UST	0.746 Mi	NORTHWEST	7107
06025004929	THE CARSON ESTATES COMPANY 20225 WESTERN AVENUE S TORRANCE, CA 90501 COUNTY: LOS ANGELES	CORTS	0.747 Mi	SOUTHWEST	4929
06002000548	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	ERNS	0 748 Mi	SOUTHWEST	548
06002002522	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	ERNS	0.748 Mi	SOUTHWEST	2522
J02003369	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	ERNS	0.748 Mi	SOUTHWEST	3369
06002003462	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY LOS ANGELES	ERNS	0.748 Mi	SOUTHWEST	3462

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ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
J02003514	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY LOS ANGELES	ERNS	0.748 Mi	SOUTHWEST	3514
06009000050	AEROSPACE SYSTEMS & EQUIP 20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY· LOS ANGELES	TRI	0.748 Mi	SOUTHWEST	50
06007014837	AIRESEARCH MFG CO OF CA 20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY. LOS ANGELES	RCRIS_LG	0.748 Mi	SOUTHWEST	4837
06055035993	AIRESEARCH MFG COMP OF CALIF 20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	HWIS	0.748 Mi	SOUTHWEST	5993
06010002341	ALLIED-SIGNAL AEROSPACE CO. 20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	UST	0 748 Mi	SOUTHWEST	2341
06005019396	THE CARSON ESTATES COMPANY 20225 WESTERN AVE S TORRANCE, CA 90501 COUNTY: LOS ANGELES	LUST	0.748 Mi	SOUTHWEST	9396
06007012613	NIKON INCORPORATED 19601 HAMILTON AVE TORRANCE, CA 90502-1306 COUNTY: LOS ANGELES	RCRIS_LG	0.750 Mi	SOUTHEAST	2613
06010002342	ALLIED-SIGNAL AEROSPACE CO 20251 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY. LOS ANGELES	UST	0.750 Mi	SOUTHWEST	2342
06007013698	GARRETT GENERAL AVIATION 20251 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	RCRIS_LG	0.750 Mi	SOUTHWEST	3698
/55022944	GARRETT GENERAL AVIATION 20251 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	HWIS	0.750 Mi	SOUTHWEST	2944
06008014891	AUGUST CONSTRUCTION AND DRILLING 19201 S HAMILTON AVE GARDENA, CA 90248-4403 COUNTY: LOS ANGELES	RCRIS_SG	0.751 Mi	NORTHEAST	4891
06040007704	GOLDEN STATE STAFF & STONE 19201 S HAMILTON AVE GARDENA, CA 90248-4403 COUNTY: LOS ANGELES	CALSITES	0.751 Mi	NORTHEAST	7704
06007007255	HOUSING AUTHORITY CITY LA 19600 HAMILTON AVE TORRANCE, CA 90502-1308 COUNTY: LOS ANGELES	RCRIS_LG	0.752 Mi	SOUTHEAST	7255
06055031295	FIRST IMAGE MANAGEMENT COMPANY 19701 HAMILTON AVE STE 130 TORRANCE, CA 90502-1304 COUNTY: LOS ANGELES	HWIS	0.760 Mi	SOUTHEAST	1295
06010008962	CALIFORIA HIGHWAY PATROL 19700 HAMILTON AVE TORRANCE, CA 90502-1310 COUNTY: LOS ANGELES	UST	0.762 Mi	SOUTHEAST	8962
06040009004	MAYFAIR PRODUCTS 20301 S WESTERN AVE TORRANCE, CA 90501-1504 COUNTY: LOS ANGELES	CALSITES	0.762 Mi	SOUTHWEST	9004
06040006852	CALIFORNIA BUYERS 1520 W 183RD ST GARDENA, CA 90248-3904 COUNTY· LOS ANGELES	CALSITES	0.770 Mi	NORTHWEST	6852
06008003456	CALIFORNIA HIGHWAY PATROL 19800 HAMILTON AVE TORRANCE, CA 90502-1312 COUNTY: LOS ANGELES	RCRIS_SG	0.772 Mi	SOUTHEAST	3456
J10009067	CALIFORNIA HIGHWAY PATROL 19800 HAMILTON AVE TORRANCE, CA 90502-1312 COUNTY: LOS ANGELES	UST	0 772 Mi	SOUTHEAST	9067
06010031321	KOZIA BROTHERS, INCORPORATED 18654 S WESTERN AVE GARDENA, CA 90248-3827 COUNTY. LOS ANGELES	UST	0.777 Mi	NORTHWEST	1321

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ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
08011159	SHINTOM WEST CORP OF AMERICA 20333 S WESTERN AVE TORRANCE, CA 90501-1504 COUNTY: LOS ANGELES	RCRIS_SG	0.777 Mi	SOUTHWEST	1159
06010041713	PACIFIC VAN/STORAGE COMPANY 1455 W TORRANCE TORRANCE, CA 90501 COUNTY: LOS ANGELES	UST	0.783 Mi	SOUTHWEST	1713
06010000914	A LIMITED PARTERSHIP, FLETCHER 777 W 190TH ST GARDENA, CA 90248-4234 COUNTY: LOS ANGELES	UST	0.790 Mi	NORTHEAST	914
06040009829	FLAMINGO TRAILER MFG CORP 777 W 190TH ST GARDENA, CA 90248-4234 COUNTY: LOS ANGELES	CALSITES	0.790 Mi	NORTHEAST	9829
06055020937	PACIFIC ENVIRONMENTAL MANAGEMENT 777 W 190TH ST GARDENA, CA 90248-4234 COUNTY: LOS ANGELES	HWIS	0.790 Mi	NORTHEAST	937
06025004836	UNOCAL STATION #5131 18605 WESTERN AVENUE S TORRANCE, CA 90248 COUNTY: LOS ANGELES	CORTS	0.797 Mi	NORTHWEST	4836
06010050773	SHIN'S UNION 76 18605 S WESTERN AVE GARDENA, CA 90248-3826 COUNTY: LOS ANGELES	UST	0.798 Mi	NORTHWEST	773
06005020814	UNOCAL #5131 18605 WESTERN AVE S TORRANCE, CA 90248 COUNTY: LOS ANGELES	LUST	0.798 Mi	NORTHWEST	814
06010058769	UNOCAL STATION #5131 18605 S WESTERN AVE GARDENA, CA 90248-3826 COUNTY: LOS ANGELES	UST	0.798 Mi	NORTHWEST	8769
35017621	UNOCAL SVC STA #5131 18605 S WESTERN AVE GARDENA, CA 90248-3826 COUNTY: LOS ANGELES	HWIS	0.798 Mi	NORTHWEST	7621
06010055708	TOMATO SYSTEMS, INC 18564 S WESTERN AVE GARDENA, CA 90248-3825 COUNTY: LOS ANGELES	UST	0.815 Mi	NORTHWEST	5708
06040008957	LISKEY ALUMINUM INC 740 W 190TH ST GARDENA, CA 90248-4235 COUNTY: LOS ANGELES	CALSITES	0.827 Mi	NORTHEAST	8957
06010023705	GERISCH PRODUCTS INC 20814 S NORMANDIE TORRANCE, CA 90602 COUNTY· LOS ANGELES	UST	0.849 Mi	SOUTHWEST	3705
06007009869	ART KUDOS TTOYOTA OF GARDENA 18416 S WESTERN AVE GARDENA, CA 90248-3823 COUNTY· LOS ANGELES	RCRIS_LG	0.851 Mi	NORTHWEST	9869
06055018415	ART KUDOS TTOYOTA OF GARDENA 18416 S WESTERN AVE GARDENA, CA 90248-3823 COUNTY: LOS ANGELES	HWIS	0.851 Mi	NORTHWEST	8415
06010048241	SAME 18416 S WESTERN AVE GARDENA, CA 90248-3823 COUNTY: LOS ANGELES	UST	0.851 Mi	NORTHWEST	8241
06008008083	MYCOM CORP 19475 GRAMERCY PL TORRANCE, CA 90501-1165 COUNTY: LOS ANGELES	RCRIS_SG	0.852 Mi	NORTHWEST	8083
06001003276	HUGHES AIRCRAFT CO. SCG 19300 GRAMERCY PL TORRANCE, CA 90501-1131 COUNTY: LOS ANGELES	CERCLIS	0.858 Mi	NORTHWEST	3276
713000209	HUGHES AIRCRAFT COMPANY SCG 19300 GRAMERCY PL TORRANCE, CA 90501-1131 COUNTY: LOS ANGELES	RCRIS_TS	0.858 Mi	NORTHWEST	209
06001000746	INDUSTRIAL MOLDING CORP 2015 W 190TH ST TORRANCE, CA 90504 COUNTY· LOS ANGELES	CERCLIS	0 860 Mi	NORTHWEST	746

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ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
40007486	INDUSTRIAL MOLDING CORP (2) 2015 W 190TH ST TORRANCE, CA 90504-6203 COUNTY. LOS ANGELES	CALSITES	0.860 Mi	NORTHWEST	7486
06010056002	TOYOTA TECH. DEV. CENTER 2015 W 190TH ST TORRANCE, CA 90504-6203 COUNTY: LOS ANGELES	UST	0.860 Mi	NORTHWEST	6002
06007003885	AKZO COATING AMERICA 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	RCRIS_LG	0.871 Mi	SOUTHWEST	3885
06005000641	AKZO COATINGS 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	LUST	0.871 Mi	SOUTHWEST	641
06025004145	AKZO COATINGS 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	CORTS	0.871 Mi	SOUTHWEST	4145
06010001794	AKZO COATINGS AMERICA INC 20846 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	UST	0.871 Mi	SOUTHWEST	1794
06040026471	AKZO COATINGS, INC. 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	CALSITES	0.871 Mi	SOUTHWEST	6471
06001003047	AZKO COATINGS, INC. 20846 NORMANDIE AVE. TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS	0.871 Mi	SOUTHWEST	3047
06055034848	ECOLOGY CONTROL INDUSTRIES INC 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	HWIS	0.871 Mi	SOUTHWEST	4848
07011469	SIKKENS AEROSPACE FINISHES 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	RCRIS_LG	0 871 Mi	SOUTHWEST	1469
06055020458	SIKKENS AEROSPACE FINISHES 20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	HWIS	0.871 Mi	SOUTHWEST	458
06055020668	LA USD GARDENA HIGH SCHOOL 1301 W 182ND ST GARDENA, CA 90248-3322 COUNTY: LOS ANGELES	HWIS	0 872 Mi	NORTHEAST	668
06055016006	HUGHES SPACE AND COMMUNICATIONS CO(HSC) 19300 GRAMERCY PL TORRANCE, CA 90501-1131 COUNTY: LOS ANGELES	HWIS	0.873 Mi	NORTHWEST	6006
06005002821	BLUE DIAMOND MATERIALS 20860 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	LUST	0.880 Mi	SOUTHWEST	2821
06040006680	SULLY-MILLER CONTRACTING CO (3) 20860 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	CALSITES	0.880 Mi	SOUTHWEST	6680
06010055875	TORRANCE H.M A. PLANT 20860 S NORMANIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	UST	0 880 Mi	SOUTHWEST	5875
06007014275	DEL AMO PARTICIPANTS DEL AMO SITE DEL AMO BLVD AT HAMILTON ST TORRANCE, CA 90745 COUNTY: LOS ANGELES	RCRIS_LG	0.900 Mi	SOUTHEAST	4275
06040006835	CHEVRON CHEMICAL COMPANY - WILMINGTON 19821 FIGUEROA ST CARSON, CA 90745 COUNTY: LOS ANGELES	CALSITES	0.908 Mi	SOUTHEAST	6835
007004737	BRITE SOL CLEANING DIV MATLACK INC 20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY: LOS ANGELES	RCRIS_LG	0 911 Mi	SOUTHEAST	4737
06007000278	PACIFIC INTERMOUNTAIN EXPRESS CO BCDV 20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY· LOS ANGELES	RCRIS_LG	0.911 Mi	SOUTHEAST	278

ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
08008856	ROLLINGS LEASING CORP 20425 SOUTH HAMILTON TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_SG	0.911 Mi	SOUTHEAST	8856
06008006806	ROLLINS LEASING CORP 20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY: LOS ANGELES	RCRIS_SG	0.911 Mi	SOUTHEAST	6806
06055019583	ROLLINS LEASING CORP 20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY: LOS ANGELES	HWIS	0.911 Mi	SOUTHEAST	9583
06010047095	ROLLINS TRUCKING 20425 S HAMILTON CARSON, CA 90502 COUNTY: LOS ANGELES	UST	0.911 Mi	SOUTHEAST	7095
06010008624	CADO SYSTEMS CORP 2055 W 190TH ST TORRANCE, CA 90504-6222 COUNTY: LOS ANGELES	UST	0.912 Mi	NORTHWEST	8624
06010037758	MONTGOMERY WARD 19751 S FIGUEROA CARSON, CA 90745 COUNTY: LOS ANGELES	UST	0.918 Mi	SOUTHEAST	7758
06055001056	1X BYROM RADIATOR SERVICE 20922 NORMANDIE AVE TORRANCE, CA 90502-1602 COUNTY: LOS ANGELES	HWIS	0.923 Mi	SOUTHWEST	1056
06025005923	PEPSI COLA-WEST 19700 FIGUEROA ST CARSON, CA 90745-1003 COUNTY: LOS ANGELES	CORTS	0.928 Mi	SOUTHEAST	5923
06005014763	PEPSI COLA-WEST 19700 FIGUEROA ST CARSON, CA 90745-1098 COUNTY: LOS ANGELES	LUST	0.929 Mi	SOUTHEAST	4763
10042641	PEPSI COLA-WEST 19700 S FIGUEROA CARSON, CA 90509 COUNTY: LOS ANGELES	UST	0.929 Mi	SOUTHEAST	2641
06010042647	PEPSI-COLA BOTTLING GROUP 19700 S FIGUEROA TORRANCE, CA 90745 COUNTY. LOS ANGELES	UST	0.929 Mi	SOUTHEAST	2647
06008009313	RYDER TRUCK RENTAL 19700 FIGUEROA ST CARSON, CA 90745-1003 COUNTY: LOS ANGELES	RCRIS_SG	0.929 Mi	SOUTHEAST	9313
06055021847	RYDER TRUCK RENTAL 19700 FIGUEROA ST CARSON, CA 90745-1003 COUNTY: LOS ANGELES	HWIS	0.929 Mi	SOUTHEAST	1847
06010001622	AGAJANIAN ENTERPRISES, INC 18300 S VERMONT AVE GARDENA, CA 90248-4056 COUNTY: LOS ANGELES	UST	0.930 Mi	NORTHEAST	1622
06040007206	WARREN SOUTHERN INC 20934 SOUTH NORMANDIE TORRANCE, CA 90502 COUNTY· LOS ANGELES	CALSITES	0.931 Mi	SOUTHWEST	7206
06010026357	HERTZ-PENSKE 19646 S FIGUEROA CARSON, CA 90745 COUNTY LOS ANGELES	UST	0 939 Mi	SOUTHEAST	6357
06008003698	PENSKE TRUCK LEASING CO LP 19646 FIGUEROA ST CARSON, CA 90745-1001 COUNTY: LOS ANGELES	RCRIS_SG	0.939 Mi	SOUTHEAST	3698
06055017151	PENSKE TRUCK LEASING CO., L.P. 19646 FIGUEROA ST CARSON, CA 90745-1001 COUNTY. LOS ANGELES	HWIS	0 939 Mi	SOUTHEAST	7151
)07007183	CARDOW CONSTRUCTION INC 19019 ANELO AVE GARDENA, CA 90248-4502 COUNTY: LOS ANGELES	RCRIS_LG	0.949 Mi	NORTHEAST	7183
06010051402	SMITH BROTHERS CRANE RENTAL 18119 LA SALLE AVE GARDENA, CA 90248-3608 COUNTY: LOS ANGELES	UST	0 950 Mi	NORTHWEST	1402

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ERIIS ID.	FACILITY/ADDRESS	DATABASE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
08011326	R H FROOM 18115 LA SALLE AVE GARDENA, CA 90248-3608 COUNTY LOS ANGELES	RCRIS_SG	0.952 Mi	NORTHWEST	1326
06010047215	ROOSEVELT MEMORIAL PARK 18255 S VERMONT AVE GARDENA, CA 90248-4008 COUNTY. LOS ANGELES	UST	0.956 Mi	NORTHEAST	7215
06008007279	CAL COMP TORRANCE FIELD SVC 20705 S WESTERN AVE STE 100 TORRANCE, CA 90501-1844 COUNTY: LOS ANGELES	RCRIS_SG	0.961 Mi	SOUTHWEST	7279
06005012821	MOBIL #11-MAP 20802 VERMONT AVE S TORRANCE, CA 90502 COUNTY: LOS ANGELES	LUST	0.962 Mi	SOUTHEAST	2821
06008017985	TOYOTA RACING DEVELOPEMENT 18240 S WESTER AVE GARDENA, CA 90248 COUNTY: LOS ANGELES	RCRIS_SG	0.965 Mi	NORTHWEST	7985
06055030935	TRD U S A INC 18240 S WESTERN AVE GARDENA, CA 90248-3819 COUNTY: LOS ANGELES	HWIS	0.965 Mi	NORTHWEST	935
06010001821	AGAJANIAN ENTERPRISES. INC 18240 S VERMONT AVE GARDENA, CA 90248-4009 COUNTY: LOS ANGELES	UST	0.966 Mi	NORTHEAST	1621
06055020027	DOUGLAS AIRCRAFT COMPANY 21000 NORMANDIE AVE TORRANCE, CA 90502-1603 COUNTY: LOS ANGELES	HWIS	0.976 Mi	SOUTHWEST	27
06007011251	MCDONNELL DOUGLAS AEROSPACE TA 21000 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_LG	0.976 Mi	SOUTHWEST	1251
40009019	MEDEARIS OILWELL SUPPLY CORPORATION 21000 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES	0.976 Mi	SOUTHWEST	9019
06008008128	P LEINER NUTRITIONAL PRODUCTS 1845 W 205TH ST TORRANCE, CA 90501-1510 COUNTY: LOS ANGELES	RCRIS_SG	0.978 Mi	SOUTHWEST	8128
06055030566	IWASAKI IMAGES OF AMERICA 20460 GRAMERCY PL TORRANCE, CA 90501-1513 COUNTY: LOS ANGELES	HWIS	0.980 Mi	SOUTHWEST	566
06010037364	MOBIL SERVICE STATION 11-EDP 18203 S WESTERN AVE GARDENA, CA 90248-3818 COUNTY: LOS ANGELES	UST	0.982 Mi	NORTHWEST	7364
06008008072	JAPANESE AUTO REPAIR 1856 DEL AMO BLVD TORRANCE, CA 90501-1301 COUNTY. LOS ANGELES	RCRIS_SG	0.984 Mi	SOUTHWEST	8072
06055028744	COLLISION CAR CENTER INC 1858 DEL AMO BLVD TORRANCE, CA 90501-1301 COUNTY: LOS ANGELES	HWIS	0.986 Mi	SOUTHWEST	8744
06008012577	Y & S NORTH AUTO BODY 1858 DEL AMO BLVD TORRANCE, CA 90501-1301 COUNTY: LOS ANGELES	RCRIS_SG	0.986 Mi	SOUTHWEST	2577
06008009700	G.T. ENVIROMENTAL LABS 20610 MANHATTAN PL STE 108 TORRANCE, CA 90501-1836 COUNTY LOS ANGELES	RCRIS_SG	0.988 Mi	SOUTHWEST	9700
06008010080	PIP PRINTING 20775 S WESTERN ST 103 TO 104 TORRANCE, CA 90501 COUNTY. LOS ANGELES	RCRIS_SG	0 991 Mi	SOUTHWEST	80

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ERIIS ID EPA ID	FACILITY FACILITY ADDRESS	NPL STATUS INCIDENT CATEGORY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06057000005 CAD008242711	MONTROSE CHEMICAL CORP 20201 S NORMANDIE AVE TORRANCE, CA 90502	ON THE FINAL NPL THIS IS A MANUFACTURING PLANT COUNTY: LOS ANGELES	0.368 MILES	SOUTHWEST	5

SITE EVENT(S)	COMPLETE DATE
DISCOVERY	01/01/1980
PRELIMINARY ASSESSMENT	04/01/1984
HAZARD RANKING DETERMINED	06/01/1988
FINAL LISTING ON NPL	10/04/1989

GROUND WATER SCORE· 12 52
SURFACE WATER SCORE: 5 15
DIRECT CONTACT SCORE: 0 00
FIRE EXPLOSION SCORE: 0 00

AIR SCORE: 53.85
SOIL SCORE: 0.00
HAZARD RANKING SCORE· 32 10

NARRATIVE DESCRIPTION OF SITE AT TIME OF LISTING ON NPL: Conditions at proposal (October 15, 1984) Montrose Chemical Corp manufactured DDT on a 13-acre site in a light industrial/residential area of Torrance, Los Angeles County, California, from 1947 until 1982. About 3,000 people live or work within 0.25 mile of the site The company's operations included formulation, grinding, packaging, and distribution of DDT According to analyses conducted by EPA, Montrose, and various State and local agencies, on- and off-site soils, surface water, and sediments are contaminated with DDT The major transport mechanisms identified were storm water run-off and aerial emissions. On May 6, 1983, EPA issued an Administrative Order under CERCLA Section 106 requiring Montrose Chemical to cease all discharges of DDT and to initiate a study to determine the nature and extent of contamination After a more detailed review of the Montrose site, EPA determined that further work was necessary to characterize the site and evaluate alternatives. Therefore, EPA prepared a workplan for a remedial investigation/feasibility study (RI/FS). This second phase of investigation will assess all areas of contamination, both on- and off-site, and any public health and environmental impacts. Status (June 1986): In February 1985, Montrose installed a temporary asphalt cover over the site. EPA did not endorse this activity. In the summer of 1985, EPA conducted Part I of the RI. On-site sampling found high levels of contamination at 77-foot depths in soil and in shallow ground water. In October 1985, Montrose and EPA signed an Administrative Order under CERCLA Section 106 requiring Montrose to conduct Part II of the RI, which includes on-site sampling of ground water and off-site sampling of soil, sediments, surface water, and ground water. Status (November 1988): During July 1986, EPA sampled off-site dust and soil and verified that DDT migrated off-site via aerial dispersion. In November 1986, Montrose completed Phase I sampling under Part II of the RI Results indicated that soils near the site are contaminated with high levels of DDT, and that the two shallower aquifers in the four-aquifer system underlying the site are contaminated with DDT and monochlorobenzene In October 1987, EPA and Montrose signed an amendment to the October 1985 Administrative Order, calling for both on- and off-site sampling of the two deeper aquifers in the four-aquifer system. Status (October 4, 1989): In July 1989, EPA and Montrose signed a second amendment to the original order, under which Montrose will conduct the FS for the overall site and evaluate options for removing Sampling conducted under the first amended order indicates that ground water is contaminated with high levels of monochlorobenzene 0.25 mile downgradient from the site. Deep wells and additional downgradient wells will be constructed and sampled.

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06013000104 CAD030398622 N	MARTIN MARIETTA CORP 2 0	19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.597 MILES	NORTHWEST	104

FACILITY VIOLATIONS: GENERATOR-LAND RESTRICTIONS,TSD-LAND RESTRICTIONS

REPORTED WASTE CODES
D000
D002
D007
D008
F019
D001
D003
F001

06013000209 CAD981440088 Y	HUGHES AIRCRAFT COMPANY SCG 0 0	19300 GRAMERCY PL TORRANCE, CA 90501-1131 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 858 MILES	NORTHWEST	209

REPORTED WASTE CODES
D000
D001
D002
F001
F002
F003
F005

ERIIS ENVIRONM" "AL DATA REPORT
COMPREHENSIVE ENVIRONMENTAL RESPONSE, (ENSATION, AND LIABILITY INFORMATION SYSTEM
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ERIIS ID / EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS / INCIDENT CATEGORY	MAP ID
06001003048 CAD086510005	MCDONNELL - DOUGLAS AIRCRAFT DISTANCE FROM SITE: 0 023 MILES DIRECTION FROM SITE: NORTHEAST	19503 NORMANDIE AVE. S. TORRANCE, CA 90502 COUNTY. LOS ANGELES	NOT ON THE NPL BLANK	3048

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/23/92	BLANK
PRELIMINARY ASSESSMENT	04/25/94	NO FURTHER ACTION

06001000522 CAD009585803	LAWSON ENTERPRISES INC DISTANCE FROM SITE 0.025 MILES DIRECTION FROM SITE: NORTHEAST	19500 S NORMANIE AVE TORRANCE, CA 90502 COUNTY. LOS ANGELES	NOT ON THE NPL BLANK	522

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	02/01/86	BLANK
PRELIMINARY ASSESSMENT	06/01/86	BLANK
SCREENING SITE INSPECTION	03/01/87	NO FURTHER ACTION

06001000759 CAD048489306	AMOCO CHEMICALS CORP DISTANCE FROM SITE: 0.065 MILES DIRECTION FROM SITE: SOUTHEAST	1225 W 196TH STREET TORRANCE, CA 90504 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	759

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	12/01/86	BLANK
PRELIMINARY ASSESSMENT	11/01/87	NO FURTHER ACTION

06001003050 CAD981450828	TRICO INDUSTRIES DISTANCE FROM SITE: 0 073 MILES DIRECTION FROM SITE: SOUTHEAST	1206 WEST 196TH STREET TORRANCE, CA 90502 COUNTY. LOS ANGELES	NOT ON THE NPL BLANK	3050

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/23/92	BLANK
PRELIMINARY ASSESSMENT	01/04/93	NO FURTHER ACTION

06001000517 CAD009565872	TYLAN CORP DISTANCE FROM SITE: 0.183 MILES DIRECTION FROM SITE: NORTHEAST	19220 NORMANDIE AVE TORRANCE, CA 90502-1011 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	517

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	02/01/81	BLANK
PRELIMINARY ASSESSMENT	01/01/85	NO FURTHER ACTION

ERIIS ID / EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS / INCIDENT CATEGORY	MAP ID
06001001201 CAD098627516	INTERWEB/RR DONNELLEY & SONS CO DISTANCE FROM SITE. 0 245 MILES DIRECTION FROM SITE· SOUTHEAST	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	1201

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	03/01/85	BLANK
PRELIMINARY ASSESSMENT	11/01/87	NO FURTHER ACTION

06001000297 CAD008352205	JONES CHEMICALS INC DISTANCE FROM SITE: 0 456 MILES DIRECTION FROM SITE: SOUTHWEST	1401 DEL AMO BLVD TORRANCE, CA 90501-1630 COUNTY. LOS ANGELES	NA BLANK	297

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
NO EVENTS REPORTED		BLANK

06001003055 CAD982018970	FARMER BROS. CO DISTANCE FROM SITE: 0 460 MILES DIRECTION FROM SITE: SOUTHWEST	20333 S. NORMANDIE AVE. TORRANCE, CA 90502 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	3055

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/23/92	BLANK
PRELIMINARY ASSESSMENT	01/04/93	NO FURTHER ACTION

06001000915 CAD063821011	GOER MFG CO INC WEST DISTANCE FROM SITE: 0 553 MILES DIRECTION FROM SITE: NORTHEAST	19100 S VERMONT AVE GARDENA, CA 90248 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	915

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	05/01/81	BLANK
PRELIMINARY ASSESSMENT	09/01/84	NO FURTHER ACTION

06001000628 CAD030398622	INTEL LIGHT METALS CORP DISTANCE FROM SITE: 0 597 MILES DIRECTION FROM SITE: NORTHWEST	19200 S WESTERN AVE TORRANCE, CA 90501 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	628

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	03/01/91	BLANK
PRELIMINARY ASSESSMENT	10/17/91	BLANK

ERIIS ID EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS INCIDENT CATEGORY	MAP ID
06001003062 CAD983643669	MARTIN MARIETTA ALUMINUM INC. DISTANCE FROM SITE: 0.597 MILES DIRECTION FROM SITE: NORTHWEST	19200 S. WESTERN AVE. TORRANCE, CA 90509 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	3062

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/23/92	BLANK

06001000351 CAD008489023	RUBBER TECK INC DISTANCE FROM SITE: 0 726 MILES DIRECTION FROM SITE· NORTHEAST	19115 S HAMILTON ST GARDENA, CA 90248 COUNTY· LOS ANGELES	NOT ON THE NPL BLANK	351

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/01/85	BLANK
PRELIMINARY ASSESSMENT	02/01/86	BLANK
PRELIMINARY ASSESSMENT	02/01/88	NO FURTHER ACTION

06001000372 CAD008799231	WESTERN CONCRETE STRUCTURE DISTANCE FROM SITE 0.726 MILES DIRECTION FROM SITE: NORTHEAST	19113 S HAMILTON AVE GARDENA, CA 90248 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	372

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	04/01/85	BLANK
PRELIMINARY ASSESSMENT	12/01/85	BLANK
SCREENING SITE INSPECTION	09/01/86	BLANK
SCREENING SITE INSPECTION	11/13/89	NO FURTHER ACTION

06001003276 CAD981440068	HUGHES AIRCRAFT CO. SCG DISTANCE FROM SITE: 0 858 MILES DIRECTION FROM SITE: NORTHWEST	19300 GRAMERCY PL TORRANCE, CA 90501-1131 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	3276

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	08/03/94	BLANK

06001000746 CAD047059811	INDUSTRIAL MOLDING CORP DISTANCE FROM SITE: 0.860 MILES DIRECTION FROM SITE: NORTHWEST	2015 W 190TH ST TORRANCE, CA 90504 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK	746

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	02/01/86	BLANK
PRELIMINARY ASSESSMENT	06/01/86	NO FURTHER ACTION

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ERIIS ID EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS INCIDENT CATEGORY	MAP ID
06001003047 CAD085941789	AZKO COATINGS, INC DISTANCE FROM SITE: 0 871 MILES DIRECTION FROM SITE. SOUTHWEST	20846 NORMANDIE AVE. TORRANCE, CA 90502 COUNTY LOS ANGELES	NOT ON THE NPL BLANK	3047

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	07/23/92	BLANK
PRELIMINARY ASSESSMENT	01/21/93	NO FURTHER ACTION

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007007243 CAD981441504 Y	ALPINE FOREIGN CAR SERVICE 0 0	19530 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 004 MILES	NORTHEAST	7243

REPORTED WASTE CODES
D000
D001
D002
F002
F004

06007001480 CAD009585803 Y	LAWSON ENTERPRISES INC 0 0	19500 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 025 MILES	NORTHEAST	1480

REPORTED WASTE CODES
D001
D004
U002
U031
U080
U159
U161
U210
U220
U226
U239

06007002453 CAD048489306 Y	AMERICAN POLYSTYRENE CORP 0 0	1225 W 196TH ST TORRANCE, CA 90502-1102 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.065 MILES	SOUTHEAST	2453

REPORTED WASTE CODES
D001

06007000563 CAD008247900 Y	REDMAN EQUIPMENT & MFG CO 0 0	19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 164 MILES	SOUTHEAST	563

REPORTED WASTE CODES
D000
K050

06007000960 CAD008379661 Y	PERMA-BILT INDUSTRIES#	19106 NORMANDIE AVE TORRANCE, CA 90502-1010 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.236 MILES	NORTHEAST	960

REPORTED WASTE CODES
F002
F017

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES F018						
06007008652 CAD981624406 Y	PUBLISHER PHOTOTYPE INC 0 0	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 245 MILES	SOUTHEAST	8652
REPORTED WASTE CODES D000						
06007015006 CAT080013634 Y	TRI-LITE MFG CO INC 0 0	19780 PACIFIC GATEWAY DR TORRANCE, CA 90502-1137 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 265 MILES	SOUTHEAST	5006
REPORTED WASTE CODES D001 F001						
06007004767 CAD980881643 Y	PACIFIC BELL 0 0	19310 PACIFIC GATEWAY DR RM111 TORRANCE, CA 90502-1031 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.273 MILES	NORTHEAST	4767
REPORTED WASTE CODES D002						
06007012600 CAD982411803 Y	COCA COLA TORRANCE 0 0	19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.288 MILES	SOUTHEAST	2600
REPORTED WASTE CODES D001						
06007003900 CAD086510005 Y	DOUGLAS AIRCRAFT COMPANY 0 0	190TH STREET & NORMANDIE AVENU TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 308 MILES	NORTHEAST	3900
REPORTED WASTE CODES						
06007000543 CAD008242711 Y	MONTROSE CHEM CORP OF CA 0 0	20201 S NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.368 MILES	SOUTHWEST	543
REPORTED WASTE CODES D002 U034 U037 U061 D002						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007003964 CAD089043277 Y	ATLAS LIGHTING 0 0	20200 NORMANDIE AVE TORRANCE, CA 90502-1212 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.375 MILES	SOUTHWEST	3964

REPORTED WASTE CODES
D000
D002
F002
F003
F007
F008
F009
P029
P121
U004
U226

06007011753 CAD982042103 Y	ACE CLEARWATER ENTERPRISES 0 0	19815 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.380 MILES	SOUTHEAST	1753

REPORTED WASTE CODES
F001

06007011990 CAD982060659 Y	MARITZ COMMUNICATIONS CO 0 0	1515 W 190TH ST GARDENA, CA 90248-4319 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.427 MILES	NORTHWEST	1990

REPORTED WASTE CODES
D000
D002

06007000877 CAD008352205 N	JONES CHEMICALS INC 0 0	1401 DEL AMO BLVD TORRANCE, CA 90501-1699 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.456 MILES	SOUTHWEST	877

FACILITY VIOLATIONS GENERATOR REQUIREMENTS
REPORTED WASTE CODES
D002
D002

06007002366 CAD046459905 Y	TELEDYNE SPRAGUE ENGINEERING 0 0	19300 S VERMONT AVE GARDENA, CA 90248-4415 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.512 MILES	NORTHEAST	2366

REPORTED WASTE CODES
D001
D004
F001
F005
F018

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007003102 CAD063821011 Y	GOER MFG CO INC 0 0	19100 S VERMONT AVE GARDENA, CA 90248-4413 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.553 MILES	NORTHEAST	3102
REPORTED WASTE CODES F005						
06007002454 CAD048496582 Y	CHEM PRO LABORATORY INC 0 0	941 W 190TH ST GARDENA, CA 90248-4398 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 570 MILES	NORTHEAST	2454
REPORTED WASTE CODES D004						
06007007438 CAD981447600 Y	CAPITOL METALS PROCESSING,INC 0 0	20000 S WESTERN AVE TORRANCE, CA 90501-1381 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.659 MILES	SOUTHWEST	7438
REPORTED WASTE CODES						
06007010489 CAD981967953 Y	DEL AMO HAZARDOUS WASTE SITE 0 0	VERMONT AVE AT DEL AMO BLVD TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 711 MILES	SOUTHEAST	489
REPORTED WASTE CODES D000 F003 F005 F024 U050 U120 U165 U239						
06007012556 CAD982408577 Y	TOYOTA TECHNICAL CENTER 0 0	1630 W 186TH ST GARDENA, CA 90248-3898 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 721 MILES	NORTHWEST	2556
REPORTED WASTE CODES						
06007001050 CAD008489023 Y	RUBBER TECK INC 0 0	19115 S HAMILTON AVE GARDENA, CA 90248-4492 COUNTY LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 726 MILES	NORTHEAST	1050
REPORTED WASTE CODES F005						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007014837 CAT080010663 Y	AIRESEARCH MFG CO OF CA 0 0	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 748 MILES	SOUTHWEST	4837

REPORTED WASTE CODES
D001
D002
F001
F002
F003
F005
U002
U013
U159
U210
U220
U228

06007013698 CAD982506818 Y	GARRETT GENERAL AVIATION 0 0	20251 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 750 MILES	SOUTHWEST	3698

REPORTED WASTE CODES
D001
D002
F001

06007012613 CAD982412595 Y	NIKON INCORPORATED 0 0	19601 HAMILTON AVE TORRANCE, CA 90502-1306 COUNTY· LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.750 MILES	SOUTHEAST	2613

REPORTED WASTE CODES

06007007255 CAD981441876 Y	HOUSING AUTHORITY CITY LA 0 0	19600 HAMILTON AVE TORRANCE, CA 90502-1308 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.752 MILES	SOUTHEAST	7255

REPORTED WASTE CODES
D001
D002
F002
F004

06007009869 CAD981677719 Y	ART KUDOS TTOYOTA OF GARDENA 0 0	18416 S WESTERN AVE GARDENA, CA 90248-3823 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.851 MILES	NORTHWEST	9869

REPORTED WASTE CODES
D000
D001

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES F002 F004						
06007003885 CAD085941789 Y	AKZO COATING AMERICA 0 0	20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 871 MILES	SOUTHWEST	3885
REPORTED WASTE CODES P053						
06007011469 CAD982030173 Y	SIKKENS AEROSPACE FINISHES 0 0	20846 NORMANDIE AVE TORRANCE, CA 90502-1601 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 871 MILES	SOUTHWEST	1469
REPORTED WASTE CODES D000 D001 F003 F005 P041 U031 U032 U057 U101 U112 U159 U161 U220 U223 U226 U239						
06007014275 CAD983655507 Y	DEL AMO PARTICIPANTS DEL AMO SITE 0 0	DEL AMO BLVD AT HAMILTON ST TORRANCE, CA 90745 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.900 MILES	SOUTHEAST	4275
REPORTED WASTE CODES D000 D001 D003 D018						
06007000278 CAD000630046 Y	PACIFIC INTERMOUNTAIN EXPRESS CO BCDV 0 0	20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.911 MILES	SOUTHEAST	278
REPORTED WASTE CODES D001 D002 D003 D004						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06007004737 CAD980880835 Y	BRITE SOL CLEANING DIV MATLACK INC 0 0	20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 911 MILES	SOUTHEAST	4737

REPORTED WASTE CODES
D001
D002
F001
F004
P010
P064
U002
U003
U007
U009
U012
U016
U019
U031
U043
U044
U051
U052
U055
U056
U057
U070
U072
U075
U078
U105
U108
U113
U122
U123
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U147
U154
U161
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U169
U188
U190
U210
U213
U220
U221
U222
U223

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES U226 U227 U228 U239						
06007007183 CAD981436223 Y	CARDOW CONSTRUCTION INC. 0 0	19019 ANELO AVE GARDENA, CA 90248-4502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 949 MILES	NORTHEAST	7183
REPORTED WASTE CODES						
06007011251 CAD982014763 Y	MCDONNELL DOUGLAS AEROSPACE TA 0 0	21000 NORMANDIE AVE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.976 MILES	SOUTHWEST	1251
REPORTED WASTE CODES D000 D001 D002 D005 D007 D008 D035 F001 F002 F003 F005 U159 U220 U239						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06008008348 CAD982314114 Y	PACIFIC GATEWAY 0 0	19524 S NORMANDIE TORRANCE, CA 90502 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.008 MILES	NORTHEAST	8348
REPORTED WASTE CODES D000 D001 D006 D007 D008 F003 F005						
06008003009 CAD981450828 Y	TRICO INDUSTRIES 0 0	19706 NORMANDIE AVE TORRANCE, CA 90502-1111 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 128 MILES	SOUTHEAST	3009
REPORTED WASTE CODES						
06008001846 CAD981390743 Y	QUANTRAD CORP 0 0	19800 NORMANDIE AVE TORRANCE, CA 90502-1113 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 203 MILES	SOUTHEAST	1846
REPORTED WASTE CODES						
06008004531 CAD981654361 Y	TRW INC 0 0	1111 KNOX ST TORRANCE, CA 90502-1034 COUNTY· LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 216 MILES	NORTHEAST	4531
REPORTED WASTE CODES D001 D002 F001 F003						
06008000811 CAD098627516 Y	R R DONNELLEY AND SONS CO L A DIV 0 0	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 245 MILES	SOUTHEAST	811
REPORTED WASTE CODES D000 D001 D011						
06008007615 CAD982023681 Y	PULSE INSTRUMENTS 0 0	1234 FRANCISCO ST TORRANCE, CA 90502-1200 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.259 MILES	SOUTHEAST	7615

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES D000 F002						
06008005477 CAD981691397 Y	HYDRO RUBBER & PLASTIC INC 0 0	1200 FRANCISCO ST TORRANCE, CA 90502-1206 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.265 MILES	SOUTHEAST	5477
REPORTED WASTE CODES F002						
06008008638 CAD982328791 Y	COMPUTER IMAGE SYSTEMS INC 0 0	20030 NORMANDIE AVE TORRANCE, CA 90502-1210 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.277 MILES	SOUTHEAST	8638
REPORTED WASTE CODES F003 F005						
06008005683 CAD981964174 Y	HOYA LENS OF AMERICA INC 0 0	970 KNOX ST TORRANCE, CA 90502-1098 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 401 MILES	NORTHEAST	5683
REPORTED WASTE CODES D000						
06008010403 CAD982462913 Y	RALPHS PRINTING INC 0 0	1115 W 190TH ST GARDENA, CA 90248-4303 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 413 MILES	NORTHEAST	403
REPORTED WASTE CODES D001						
06008018387 CAD983659392 Y	ADVANTAGE CARE TORRANCE 0 0	19401 S VERMONT AVE TORRANCE, CA 90502-1029 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.498 MILES	NORTHEAST	8387
REPORTED WASTE CODES D000 D011						
06008004529 CAD981654346 Y	TRW INC 0 0	19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.531 MILES	NORTHEAST	4529
REPORTED WASTE CODES D001 D002 F001						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES F003						
06008009562 CAD982408601 Y	USHIO AMERICA INC 0 0	20101 S VERMONT AVE TORRANCE, CA 90502-1328 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 588 MILES	SOUTHEAST	9562
REPORTED WASTE CODES						
06008005300 CAD981685027 Y	LEES AUTO SHOP 0 0	20530 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 640 MILES	SOUTHWEST	5300
REPORTED WASTE CODES F002 F004						
06008014891 CAD983807037 Y	AUGUST CONSTRUCTION AND DRILLING 0 0	19201 S HAMILTON AVE GARDENA, CA 90248-4403 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 751 MILES	NORTHEAST	4891
REPORTED WASTE CODES D001						
06008003456 CAD981573470 Y	CALIFORNIA HIGHWAY PATROL 0 0	19800 HAMILTON AVE TORRANCE, CA 90502-1312 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 772 MILES	SOUTHEAST	3456
REPORTED WASTE CODES						
06008011159 CAD982482986 Y	SHINTOM WEST CORP OF AMERICA 0 0	20333 S WESTERN AVE TORRANCE, CA 90501-1504 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.777 MILES	SOUTHWEST	1159
REPORTED WASTE CODES F002						
06008008083 CAD982048118 Y	MYCOM CORP 0 0	19475 GRAMERCY PL TORRANCE, CA 90501-1165 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.852 MILES	NORTHWEST	8083
REPORTED WASTE CODES D000 D001 D002 F002 F004						

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06008006806 CAD981994809 Y	ROLLINS LEASING CORP 0 0	20425 HAMILTON AVE TORRANCE, CA 90502-1513 COUNTY· LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.911 MILES	SOUTHEAST	6806
REPORTED WASTE CODES D001						
06008008856 CAD982344897 Y	ROLLINGS LEASING CORP 0 0	20425 SOUTH HAMILTON TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.911 MILES	SOUTHEAST	8856
REPORTED WASTE CODES D001						
06008009313 CAD982374241 Y	RYDER TRUCK RENTAL 0 0	19700 FIGUEROA ST CARSON, CA 90746-1003 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 929 MILES	SOUTHEAST	9313
REPORTED WASTE CODES						
06008003698 CAD981613557 Y	PENSKE TRUCK LEASING CO LP 0 0	19646 FIGUEROA ST CARSON, CA 90745-1001 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.939 MILES	SOUTHEAST	3698
REPORTED WASTE CODES D001 D008 F002						
06008011326 CAD982487712 Y	R H FROOM 0 0	18115 LA SALLE AVE GARDENA, CA 90248-3608 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.952 MILES	NORTHWEST	1326
REPORTED WASTE CODES D002						
06008007279 CAD982013856 Y	CAL COMP TORRANCE FIELD SVC 0 0	20705 S WESTERN AVE STE 100 TORRANCE, CA 90501-1844 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.961 MILES	SOUTHWEST	7279
REPORTED WASTE CODES D001						
06008017985 CAD983654690 Y	TOYOTA RACING DEVELOPEMENT 0 0	18240 S WESTER AVE GARDENA, CA 90248 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 965 MILES	NORTHWEST	7985

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
REPORTED WASTE CODES D001						
06008008128 CAD982049348 Y	P LEINER NUTRITIONAL PRODUCTS 0 0	1845 W 205TH ST TORRANCE, CA 90501-1510 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0.978 MILES	SOUTHWEST	8128
REPORTED WASTE CODES D000 D001						
06008008072 CAD982047987 Y	JAPANESE AUTO REPAIR 0 0	1856 DEL AMO BLVD TORRANCE, CA 90501-1301 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 984 MILES	SOUTHWEST	8072
REPORTED WASTE CODES D000 D001 D002 F002 F004						
06008012577 CAD982523862 Y	Y & S NORTH AUTO BODY 0 0	1858 DEL AMO BLVD TORRANCE, CA 90501-1301 COUNTY. LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 986 MILES	SOUTHWEST	2577
REPORTED WASTE CODES D001 F003 F005						
06008009700 CAD982414054 Y	G T. ENVIROMENTAL LABS 0 0	20610 MANHATTAN PL STE 108 TORRANCE, CA 90501-1836 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 988 MILES	SOUTHWEST	9700
REPORTED WASTE CODES						
06008010080 CAD982440497 Y	PIP PRINTING 0 0	20775 S WESTERN ST 103 TO 104 TORRANCE, CA 90501 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS	0 991 MILES	SOUTHWEST	80
REPORTED WASTE CODES D001						

ERIIS ENVIRONMF" "AL DATA REPORT
FACILI' 'CKET
DOCKET - PLOT ..LE SITES - PAGE 1

ERIIS Report #20100A

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ERIIS ID	EPA ID	FACILITY	STREET	CITY	ZIP	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06060000010	CAD008242711	MONTROSE CHEMICAL CORP OF CA D	20201 NORMANDIE AVE	TORRANCE	90502	0.376 MILES	SOUTHWEST	10

CASE NUMBER	CASE NAME	LAWS VIOLATED	DATE FILED	DATE CONCLUDED	COURT DOCKET NO	ASSESSED PENALTY ($)	DISPOSITION
09-90-0012	MONTROSE CHEMCIAL CORPORATION	CERCLA 107A	19/06/90		CV-90-3122-A	0	NOT REPORTED

LAW TABLE: CAA - CLEAN AIR ACT CERCLA - COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (SUPERFUND) CWA - CLEAN WATER ACT
EPCRA - EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT FIFRA - FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT
MPRSA - MARINE PROTECTION, RESEARCH, AND SANCTUARIES ACT MWTA - MEDICAL WASTE TRACKING ACT RCRA - RESOURCE CONSERVATION AND RECOVERY ACT
SDWA - SAFE DRINKING WATER ACT TSCA - TOXIC SUBSTANCES CONTROL ACT

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000294 / CAD086510005	DOUGLAS AIRCRAFT CO. / 90502DGLSR19503	19503 NORMANDIE AVE / TORRANCE, CA 90502	LOS ANGELES	3728	CATHY RUDOLPH / (310) 982-2826	0 023 MILES	NORTHEAST	294

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
NITRIC ACID	5	5	0	0	0	10	0	21000	21000
1,1,1-TRICHLOROETHANE	21000	15000	0	0	0	36000	5	56255	56260
SULFURIC ACID	0	5	0	0	0	5	0	5300	5300
DICHLOROMETHANE	28000	2900	0	0	0	30900	5	16255	16260
TETRACHLOROETHYLENE	5	80000	0	0	0	80005	0	250	250
HYDROGEN FLUORIDE	250	250	0	0	0	500	0	6100	6100

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000295 / CAD048489306	AMOCO CHEMICAL CO / 90502MCCHM1225W	1225 W 196TH ST / TORRANCE, CA 90502	LOS ANGELES	2821	ROBERT DOERR / (310) 329-6379	0 065 MILES	SOUTHEAST	295

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
ETHYLBENZENE	10	30	0	0	0	40	0	1011	1011
STYRENE	500	2800	0	0	70	3370	0	26625	26625

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000297 / HGHQ36018986	TRICO IND INC. / 90502TRCND1206W	1206 W 196TH ST / TORRANCE, CA 90502	LOS ANGELES	3561	TERRY HALL / (213) 586-8840	0.073 MILES	SOUTHEAST	297

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
XYLENE (MIXED ISOMERS)	15	0	0	0	0	15	0	0	0

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000296 / CAD098627516	R. R. DONNELLEY & SONS CO / 90502RRDNN19681	19681 PACIFIC GATEWAY DR / TORRANCE, CA 90502	LOS ANGELES	2752	JEAMES QUINN / (310) 516-3200	0.245 MILES	SOUTHEAST	296

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
GLYCOL ETHERS	4138	776	0	0	0	4914	0	422	422
ETHYLENE GLYCOL	1958	367	0	0	0	2325	0	200	200

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000298 / CAT080013634	TRI-LITE MFG. CO. INC. / 90502TRLTM19780	19780 PACIFIC GATEWAY DR / TORRANCE, CA 90502	LOS ANGELES	3645	JERRY MOORE / (310) 327-3100	0.265 MILES	SOUTHEAST	298

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
TETRACHLOROETHYLENE	0	16998	0	0	0	16998	0	2700	2700

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000317 / CAD008352205	JONES CHEMICALS INC. / 90507JNSCH1401W	1401 DEL AMO BLVD / TORRANCE, CA 90501	LOS ANGELES	2819	TIMOTHY SETH / (310) 328-6383	0.456 MILES	SOUTHWEST	317

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
CHLORINE	5	335	0	0	0	340	0	0	0
AMMONIA	287	6	0	0	0	293	0	0	0
HYDROCHLORIC ACID	58	1	0	0	0	59	0	0	0
NITRIC ACID	6	0	0	0	0	6	0	0	0
SULFURIC ACID	0	0	0	0	0	0	0	0	0

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000324 / CAD030398622	MARTIN MARIETTA TECHNOLOG / 90509NTRNT19200	19200 S WESTERN AVE / TORRANCE, CA 90501	LOS ANGELES	3354	PAUL SEBOK / (310) 787-4422	0 597 MILES	NORTHWEST	324

ERIIS ID / EPA ID	FACILITY / FACILITY ID	ADDRESS	COUNTY	SIC CODE	CONTACT / PHONE	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06009000288 / CAD981447600	CAPITOL METALS PROCESSING / 90501CPTLM20000	20000 S WESTERN AVE / TORRANCE, CA 90501	LOS ANGELES	3471	ADELE DORMAN / (310) 533-0466	0.659 MILES	SOUTHWEST	288

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
SULFURIC ACID	5	250	0	0	0	255	0	35631	35631
NITRIC ACID	250	250	0	0	0	500	0	105205	105205
MANGANESE COMPOUNDS	0	0	0	0	0	0	25	0	25
HYDROGEN FLUORIDE	5	250	0	0	0	255	0	9957	9957
ZINC COMPOUNDS	0	0	0	0	0	0	375	349	724
COPPER COMPOUNDS	0	0	0	0	0	0	158	6037	6195
CHROMIUM COMPOUNDS	0	0	0	0	0	0	20	739	759

06009000050 / CAT080010663	AEROSPACE SYSTEMS & EQUIP / 90023RSRCH20225	20225 S WESTERN AVE / TORRANCE, CA 90501	LOS ANGELES	3728	VERN ALEXANDER / (310) 512-1656	0.748 MILES	SOUTHWEST	50

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
HYDROCHLORIC ACID	0	92	0	0	0	92	0	604124	604124

CHEMICAL	RELEASES (LBS.) FUGITIVE AIR	STACK AIR	WATER	UNDER INJECTION	LAND	TOTAL	TRANSFERS (LBS.) POTW	OFF-SITE	TOTAL
1,1,1-TRICHLOROETHANE	17870	0	0	0	0	17870	5	7215	7220

ERIIS ID / REPORT NUMBER / SOURCE AGENCY	SPILL CITY, STATE, ZIP CODE / SPILL COUNTY	DISCHARGER NAME / ORGANIZATION / ADDRESS	MEDIA AFFECTED: LAND	WATER	AIR	GRND WATER	FACILITY	SPILL DATE / WATER WAY AFFECTED	MAP ID
06002000548 94-1976 EPA REGION	TORRANCE, CA 90501 LOS ANGELES DISTANCE FROM SITE: 0.748 MILES DIRECTION FROM SITE: SOUTHWEST	ALLIED SIGNAL 20225 WESTERN AVE TORRANCE, CA 90501	Y	Y	N	N	N	01/27/94	548
LOCATION: 20225 WESTERN AVE DESCRIPTION: LEAK IN PIPING, ALL CONTAINED IN SECONDARY CONTAINMENT. MATERIAL SPILLED. NITRIC ACID & SODIUM CHROMATE QTY: 3 GAL LBS: 0 QTY IN WATER. 0 UNK ACTION TAKEN. RP TO CLEANUP MISCELANEOUS: Referred to Washoe County Health District, Bob Sack.									
06002002522 242229 NATL. RESPONSE CTR	TORRANCE, CA 90501 LOS ANGELES DISTANCE FROM SITE: 0.748 MILES DIRECTION FROM SITE: SOUTHWEST	ALLIED SIGNAL 20225 WESTERN AVE TORRANCE, CA 90509	N	N	Y	N	N	06/02/94 ATMOSPHERE	2522
LOCATION: 20225 WESTERN AVE DESCRIPTION CALLER STATES EMPLOYEE MIXED TWO MISLABELED CHEMICALS CAUSING CHEMICAL REACTION AT PLANT MATERIAL SPILLED. CHLORINE GAS QTY: 20 CBF LBS: 0 QTY IN WATER: 0 NON ACTION TAKEN: DISCONTINUED TO MIX MATERIAL MISCELANEOUS: ONE EMPLOYEE WAS INJURED DUE TO RELEASE									
06002003369 94-4352 EPA REGION	TORRANCE, CA 90501 LOS ANGELES DISTANCE FROM SITE: 0 748 MILES DIRECTION FROM SITE: SOUTHWEST	ALLIED SIGNAL 20225 WESTERN AVE TORRANCE, CA 90501	N	Y	N	N	N	06/02/94	3369
LOCATION: 20225 WESTERN AVE DESCRIPTION: MISLABELED DRUM PRODUCT MIXED W/ SODIUM HYPOCHLORITE CAUSING SMALL VAPOR CLOUD TO OVERCOME EMPLOYEE MATERIAL SPILLED: ACID (UNKNOWN TYPE) QTY: 0 UNK LBS: 0 QTY IN WATER: 0 UNK ACTION TAKEN: RESPONSE BY LA COUNTY HEALTH HAZMAT. CLEANUP BY RP									
06002003462 94-4266 EPA REGION	TORRANCE, CA 90501 LOS ANGELES DISTANCE FROM SITE: 0.748 MILES DIRECTION FROM SITE: SOUTHWEST	ALLIED SIGNAL 20225 WESTERN AVE TORRANCE, CA 90509	N	N	Y	N	N	06/02/94	3462
LOCATION: 20225 WESTERN AVE DESCRIPTION: CALLER STATES EMPLOYEE MIXED TWO MISLABELED CHEMICALS CAUSING CHEMICAL REACTION AT PLANT MATERIAL SPILLED. CHLORINE GAS (20 CU FT) QTY: 20 UNK LBS: 0 QTY IN WATER: 0 UNK ACTION TAKEN. DISCONTINUED TO MIX MATERIAL									
06002003514 94-4352 EPA REGION	TORRANCE, CA 90501 LOS ANGELES DISTANCE FROM SITE: 0.748 MILES DIRECTION FROM SITE: SOUTHWEST	ALLIED SIGNAL 20225 WESTERN AVE TORRANCE, CA 90501	N	N	Y	N	N	06/02/94	3514
LOCATION: 20225 WESTERN AVE DESCRIPTION: MISLABELED DRUM PRODUCT MIXED W/ SODIUM HYPOCHLORITE CAUSING SMALL VAPOR CLOUD TO OVERCOME EMPLOYEE MATERIAL SPILLED: ACID (UNKNOWN TYPE) QTY: 0 UNK LBS: 0 QTY IN WATER: 0 UNK ACTION TAKEN: RESPONSE BY LA COUNTY HEALTH HAZMAT. CLEANUP BY RP									

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ERIIS ID / EPA ID	FACILITY	FACILITY ADDRESS	SIC CODE(S)	DISTANCE FROM SITE	DIRECTION FROM SITE
06003019462 CAD981441504	ALPINE FOREIGN CAR SERVICE	19530 S NORMANDIE TORRANCE, CA 90502	NOT REPORTED	0 004 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
06003037479 CAD982314114	PACIFIC GATEWAY	19524 S NORMANDIE TORRANCE, CA 90502	7538	0.008 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
06003007099 CAD071900740	CROSSFIELD PRODUCTS CORP	19514 S NOMANDIE AVE TORRANCE, CA 90502	2951 4225	0.015 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
06003008307 CAD088510005	DOUGLAS AIRCRAFT COMPANY MCDONNELL	19503 NORMANDIE AVE TORRANCE, CA 90502-1185	NOT REPORTED	0 023 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
	AFS/AIRS 09/16/93				
	AFS/AIRS 09/16/93				
	CERCLIS 09/17/93				
	TRIS 09/20/93				
06003002682 CAD009585803	LAWSON ENTERPRISES INCORPORATED	19500 S NORMANDIE TORRANCE, CA 90502	2851	0 025 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/22/93				
	SSTS 09/16/93				
	CERCLIS 09/17/93				
06003005084 CAD048489306	AMERICAN POLYSTYRENE CORP	1225 W 196TH ST TORRANCE, CA 90502-1102	3086	0.065 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
	RCRIS 01/12/94				
	CERCLIS 09/17/93				
	CICIS 09/16/93				
	TRIS 09/20/93				
06003052775 CAD983623216	TRICO INDUSTRIES INC	1206 W 196TH ST TORRANCE, CA 90502-1101	NOT REPORTED	0 073 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	TRIS 11/23/93				
06003020190 CAD981450828	TRICO INDUSTRIES	19706 NORMANDIE AVE TORRANCE, CA 90502-1111	NOT REPORTED	0.128 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE				
	RCRIS 09/23/93				
	AFS/AIRS 09/16/93				
	AFS/AIRS 09/16/93				
	CERCLIS 09/17/93				
06003001048 CAD008247900	REDMAN EQUIPMENT & MFG CO	19800 NORMANDIE AVE TORRANCE, CA 90502-1112	NOT REPORTED	0 164 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE				

ERIIS ID / EPA ID	FACILITY	FACILITY ADDRESS	SIC CODE(S)	DISTANCE FROM SITE	DIRECTION FROM SITE
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/22/93				
06003005727 CAD054869557	GERON FURNITURE	19808 S NORMANDIE TORRANCE, CA 90502	2511	0.167 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93 NCDB / NOT REPORTED NCDB / NOT REPORTED TRIS / NOT REPORTED				
06003002647 CAD009565672	TYLAN CORP	19220 NORMANDIE AVE TORRANCE, CA 90502-1011	NOT REPORTED	0 183 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/22/93 RCRIS / 01/12/94 CERCLIS / 09/17/93				
06003015669 CAD981390743	QUANTRAD CORP	19900 NORMANDIE AVE TORRANCE, CA 90502-1113	NOT REPORTED	0.203 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93				
06003026029 CAD981654361	TRW INCORPORATED	1111 KNOX ST TORRANCE, CA 90502-1034	NOT REPORTED	0.216 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93				
06003001717 CAD008379661	PERMA BILT INDUSTRIES	19106 NORMANDIE AVE TORRANCE, CA 90502-1010	2514 3441 3469 3645	0 236 MILES	NORTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/22/93				
06003009116 CAD098627516	DONNELLEY R R AND SONS COMPANY	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164	2752	0 245 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93 AFS/AIRS / 09/16/93 CERCLIS / 09/17/93				
06003023593 CAD981624406	PUBLISHER PHOTOTYPE INC	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164	NOT REPORTED	0 245 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93				
06003035269 CAD982035289	R&R DONNELLY & SONS	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164	NOT REPORTED	0 245 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE RCRIS / 09/23/93				
06003048367 CAD983576844	R. R DONNELLEY & SONS CO.	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1164	2752	0 245 MILES	SOUTHEAST
	TRACKING PROGRAM / LAST UPDATE TRIS / 11/23/93				

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ERIIS ID FACILITY ID	FACILITY	ADDRESS	CALSITE STATUS GROUNDWATER STATUS	CALSITE STATUS DATE	MAP ID
06040006476 19280486	CROSSFIELD PRODUCTS CORP (2) DISTANCE FROM SITE: 0.015 MILES DIRECTION FROM SITE: NORTHEAST	19514 NORMANDIE AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/13/83	6476
06040006654 19280680	LAWSON ENTERPRISES, INC DISTANCE FROM SITE: 0.025 MILES DIRECTION FROM SITE: NORTHEAST	19500 SOUTH NORMANDIE TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - MEDIUM NOT REPORTED	12/14/87	6654
06040007247 19290155	AMOCO CHEMICALS CORP (2) DISTANCE FROM SITE. 0.065 MILES DIRECTION FROM SITE: SOUTHEAST	1225 W 196TH ST TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	06/01/86	7247
06040009025 19350260	B & W INC DISTANCE FROM SITE: 0 073 MILES DIRECTION FROM SITE. SOUTHEAST	1206 W 196TH ST TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	01/19/83	9025
06040008465 19340401	PERMABILT INDUSTRIES DISTANCE FROM SITE: 0.143 MILES DIRECTION FROM SITE: NORTHEAST	19306 NORMANDIE AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/01/83	8465
06040009384 19360147	TYLAN CORPORATION DISTANCE FROM SITE: 0.183 MILES DIRECTION FROM SITE: NORTHEAST	19220 NORMANDIE AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	03/01/84	9384
06040005891 19270135	QUANTRAD CORPORATION DISTANCE FROM SITE: 0.203 MILES DIRECTION FROM SITE: SOUTHEAST	19900 SOUTH NORMANDIE TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	03/09/88	5891
06040007004 19281072	KENITEX CHEMICALS INC DISTANCE FROM SITE: 0.259 MILES DIRECTION FROM SITE: SOUTHEAST	1234 FRANCISCO ST TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/14/83	7004
06040005667 19220012	MENARDI & COMPANY (2) DISTANCE FROM SITE: 0.263 MILES DIRECTION FROM SITE: SOUTHEAST	1201 WEST FRANCISCO TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	04/19/83	5667
06040006640 19280665	DUMAY LABORATORIES INC DISTANCE FROM SITE: 0.373 MILES DIRECTION FROM SITE: SOUTHEAST	19750 MAGELLAN DR TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/13/83	6640
06040009170 19350411	RISTO-LOS ANGELES DISTANCE FROM SITE: 0.373 MILES DIRECTION FROM SITE: NORTHWEST	1441 W 190TH ST GARDENA 90248	SITE SCREENING REQUIRED NOT REPORTED	03/15/83	9170
06040009561 19360359	ATLAS LIGHTING INC DISTANCE FROM SITE· 0 375 MILES DIRECTION FROM SITE: SOUTHWEST	20200 S NORMANDIE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/13/83	9561
06040006077 19280024	MONTROSE CHEMICAL CORP DISTANCE FROM SITE: 0.376 MILES DIRECTION FROM SITE: SOUTHWEST	20201 NORMANDIE AVE TORRANCE 90502	ANNUAL WORKPLAN - ACTIVE SITE GROUNDWATER CONTAMINATION	01/01/85	6077
06040007397 19300033	ACRO TECH MACHINE CO DISTANCE FROM SITE. 0 404 MILES DIRECTION FROM SITE: NORTHEAST	1125 W 190TH ST GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	11/03/82	7397

ERIIS ID FACILITY ID	FACILITY	ADDRESS	CALSITE STATUS GROUNDWATER STATUS	CALSITE STATUS DATE	MAP ID
06040006165 19280124	JONES CHEMICAL DISTANCE FROM SITE: 0 456 MILES DIRECTION FROM SITE: SOUTHWEST	1401 DEL AMO BLVD TORRANCE 90501	BACKLOG - POTENTIAL AWP SITE NOT REPORTED	07/01/93	6165
06040007934 19330193	ALUMA SERVICES DISTANCE FROM SITE· 0 512 MILES DIRECTION FROM SITE: NORTHEAST	1015 3/4 W 190TH ST GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	11/09/82	7934
06040006652 19280677	GREENO CO DISTANCE FROM SITE: 0.524 MILES DIRECTION FROM SITE: NORTHEAST	19234 S VERMONT AVE GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/13/83	6652
06040006620 19280642	NAUGATUCK CHEMICAL DISTANCE FROM SITE: 0.529 MILES DIRECTION FROM SITE: NORTHEAST	19201 S VERMONT AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/01/83	6620
06040010116 19390007	GOER MANUFACTURING CO INC WEST DISTANCE FROM SITE: 0.553 MILES DIRECTION FROM SITE: NORTHEAST	19100 S VERMONT AVE GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	03/20/84	116
06040007976 19330238	INTERNATIONAL LIGHT METALS DISTANCE FROM SITE: 0 597 MILES DIRECTION FROM SITE: NORTHWEST	19200 S WESTERN AVE TORRANCE 90501	SITE SCREENING REQUIRED NOT REPORTED	01/28/83	7976
06040005605 19150006	RECONSTRUCTION FINANCE CORP - DOW DISTANCE FROM SITE: 0.711 MILES DIRECTION FROM SITE: SOUTHEAST	VERMONT & DEL AMO TORRANCE 90502	SITE SCREENING REQUIRED NOT REPORTED	09/29/83	5605
06040007390 19300025	RUBBER TECK INC DISTANCE FROM SITE: 0.726 MILES DIRECTION FROM SITE: NORTHEAST	19115 HAMILTON STREET GARDENA 90248	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	11/08/88	7390
06040007701 19320133	WESTERN CONCRETE STRUCTURE, INC DISTANCE FROM SITE: 0 726 MILES DIRECTION FROM SITE: NORTHEAST	19113 S HAMILTON AVE GARDENA 90248	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	04/25/86	7701
06040010240 19490044	SOUTHERN CALIFORNIA DISPOSAL DISTANCE FROM SITE: 0.738 MILES DIRECTION FROM SITE: NORTHEAST	186TH STREET & VERMONT AVENUE GARDENA 90248	SITE SCREENING REQUIRED NOT REPORTED	10/20/81	240
06040007704 19320136	GOLDEN STATE STAFF & STONE DISTANCE FROM SITE: 0.751 MILES DIRECTION FROM SITE. NORTHEAST	18201 S HAMILTON AVE GARDENA 90248	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	02/08/88	7704
06040009004 19350237	MAYFAIR PRODUCTS DISTANCE FROM SITE: 0.762 MILES DIRECTION FROM SITE: SOUTHWEST	20301 S WESTERN AVE TORRANCE 90501	NO FURTHER ACTION FOR DTSC NOT REPORTED	01/27/83	9004
06040006852 19280893	CALIFORNIA BUYERS DISTANCE FROM SITE: 0.770 MILES DIRECTION FROM SITE: NORTHWEST	1520 W 183RD ST GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	11/23/82	6852
06040009829 19370119	FLAMINGO TRAILER MFG CORP DISTANCE FROM SITE: 0.790 MILES DIRECTION FROM SITE: NORTHEAST	777 W 190TH ST GARDENA 90248	SITE SCREENING REQUIRED NOT REPORTED	08/31/82	9829

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ERIIS ID FACILITY ID	FACILITY	ADDRESS	CALSITE STATUS GROUNDWATER STATUS	CALSITE STATUS DATE	MAP ID
06040008957 19350184	LISKEY ALUMINUM INC DISTANCE FROM SITE: 0.827 MILES DIRECTION FROM SITE: NORTHEAST	740 W 190TH ST GARDENA 90248	NO FURTHER ACTION FOR DTSC NOT REPORTED	11/03/82	8957
06040007486 19300130	INDUSTRIAL MOLDING CORP (2) DISTANCE FROM SITE: 0.860 MILES DIRECTION FROM SITE: NORTHWEST	2015 W 190TH ST TORRANCE 90504	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - MEDIUM NOT REPORTED	11/01/85	7486
06040026471 19300232	AKZO COATINGS, INC. DISTANCE FROM SITE: 0 871 MILES DIRECTION FROM SITE: SOUTHWEST	20846 NORMANDIE AVE TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	02/22/93	6471
06040006680 19280706	SULLY-MILLER CONTRACTING CO (3) DISTANCE FROM SITE: 0 880 MILES DIRECTION FROM SITE. SOUTHWEST	20860 NORMANDIE AVE TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	02/19/88	6680
06040006835 19280873	CHEVRON CHEMICAL COMPANY - WILMINGTON DISTANCE FROM SITE: 0 908 MILES DIRECTION FROM SITE: SOUTHEAST	19821 FIGUEROA ST CARSON 90745	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - MEDIUM NOT REPORTED	11/17/86	6835
06040007206 19290106	WARREN SOUTHERN INC DISTANCE FROM SITE: 0.931 MILES DIRECTION FROM SITE: SOUTHWEST	20934 SOUTH NORMANDIE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/21/82	7206
06040009019 19350254	MEDEARIS OILWELL SUPPLY CORPORATION DISTANCE FROM SITE: 0 976 MILES DIRECTION FROM SITE: SOUTHWEST	21000 NORMANDIE AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/14/83	9019

ERIIS ID	FACILITY	ADDRESS	COUNTY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06005006685	DOUGLAS AIRCRAFT CO	19503 NORMANDIE AVE TORRANCE, CA 90502-1185	LOS ANGELES	0.023 MILES	NORTHEAST	6685
REPORT DATE: 10/14/1987	CASE TYPE: OTHER	SUBSTANCE: SOLVENTS	ABATEMENT METHOD: NOT REPORTED	STATUS: POLLUTION CHARACTERIZATION		
06005009175	GREEN'S READY MIXED CONCRETE	19030 NORMANDIE AVE TORRANCE, CA 90502-1009	LOS ANGELES	0.271 MILES	NORTHEAST	9175
REPORT DATE: 03/21/1990	CASE TYPE: UNDEFINED	SUBSTANCE: DIESEL	ABATEMENT METHOD: NOT REPORTED	STATUS: CASE CLOSED		
06005018178	SOUTH BAY CORP.	1411 190TH ST., W GARDENA, CA 90248	LOS ANGELES	0.355 MILES	NORTHWEST	8178
REPORT DATE: 01/17/1992	CASE TYPE: SOIL ONLY	SUBSTANCE: DIESEL	ABATEMENT METHOD: NOT REPORTED	STATUS: NO ACTION		
06005013662	NEW YORK LIFE INSURANCE CO.	19191 VERMONT AVE., S. LOS ANGELES COUNTY, CA 90502	LOS ANGELES	0.531 MILES	NORTHEAST	3662
REPORT DATE: 08/17/1992	CASE TYPE: SOIL ONLY	SUBSTANCE: DIESEL	ABATEMENT METHOD: NOT REPORTED	STATUS: POLLUTION CHARACTERIZATION		
06005019824	TOYOTA MOTOR SALES	19001 WESTERN AVE S TORRANCE, CA 90509	LOS ANGELES	0.633 MILES	NORTHWEST	9824
REPORT DATE: 05/22/1988	CASE TYPE: SOIL ONLY	SUBSTANCE: DIESEL	ABATEMENT METHOD: NOT REPORTED	STATUS: NO ACTION		
06005020880	UNOCAL #6075	1875 190TH ST W TORRANCE, CA 90504	LOS ANGELES	0.742 MILES	NORTHWEST	880
REPORT DATE: 09/26/1988	CASE TYPE: SOIL ONLY	SUBSTANCE: WASTE OIL	ABATEMENT METHOD: NOT REPORTED	STATUS: POLLUTION CHARACTERIZATION		
06005019396	THE CARSON ESTATES COMPANY	20225 WESTERN AVE S TORRANCE, CA 90501	LOS ANGELES	0.748 MILES	SOUTHWEST	9396
REPORT DATE: 12/09/1985	CASE TYPE: OTHER	SUBSTANCE: MISC MOTOR VEH FUEL	ABATEMENT METHOD: EXCAVATE AND DISPOSE	STATUS: REMEDIAL ACTION UNDERWAY		
06005020814	UNOCAL #5131	18605 WESTERN AVE S TORRANCE, CA 90248	LOS ANGELES	0.798 MILES	NORTHWEST	814
REPORT DATE: 09/26/1988	CASE TYPE: OTHER	SUBSTANCE: GASOLINE	ABATEMENT METHOD: NOT REPORTED	STATUS: POLLUTION CHARACTERIZATION		
06005000641	AKZO COATINGS	20846 NORMANDIE AVE TORRANCE, CA 90502-1601	LOS ANGELES	0.871 MILES	SOUTHWEST	641
REPORT DATE: 10/14/1993	CASE TYPE: OTHER	SUBSTANCE: TOLUENE	ABATEMENT METHOD: VENT SOIL	STATUS: POLLUTION CHARACTERIZATION		
06005002821	BLUE DIAMOND MATERIALS	20860 NORMANDIE AVE TORRANCE, CA 90502-1601	LOS ANGELES	0.880 MILES	SOUTHWEST	2821
REPORT DATE: 04/14/1992	CASE TYPE: UNDEFINED	SUBSTANCE: DIESEL	ABATEMENT METHOD: NOT REPORTED	STATUS: PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED		
06005014763	PEPSI COLA-WEST	19700 FIGUEROA ST CARSON, CA 90745-1098	LOS ANGELES	0.929 MILES	SOUTHEAST	4763
REPORT DATE: 09/05/1990	CASE TYPE: OTHER	SUBSTANCE: UNLEADED GASOLINE	ABATEMENT METHOD: NOT REPORTED	STATUS: REMEDIATION PLAN		

ERIIS ID	FACILITY	ADDRESS	COUNTY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06005012821	MOBIL #11-MAP	20802 VERMONT AVE S TORRANCE, CA 90502	LOS ANGELES	0.962 MILES	SOUTHEAST	2821

REPORT DATE	CASE TYPE	SUBSTANCE	ABATEMENT METHOD	STATUS
12/15/1993	UNDEFINED	GASOLINE	NOT REPORTED	LEAK BEING CONFIRMED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010017344	DOUGLAS AIRCRAFT COMPANY DISTANCE FROM SITE: 0.023 MILES DIRECTION FROM SITE: NORTHEAST	AEROSPACE	19503 S NORMANDIE LOS ANGELES, CA 90502 COUNTY: LOS ANGELES	SECURITY DEPARTMENT (213) 533-7211	7344

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	12000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	BARE STEEL
	4000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	BARE STEEL
	4000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	BARE STEEL
	500 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
	8500 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
	8500 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
	8500 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
	10000 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
	3000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL WITH EXTERIOR LINER	BARE STEEL
	10000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	7500 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	7500 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	500 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	500 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	5000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	5000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	5000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	5000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	50000 G	NOT REPORTED	INACTIVE	SINGLE WALL	BARE STEEL
	50000 G	NOT REPORTED	INACTIVE	SINGLE WALL	BARE STEEL
	500 G	OIL	INACTIVE	SINGLE WALL	CONCRETE
	500 G	OIL	INACTIVE	SINGLE WALL	CONCRETE
	15000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	CONCRETE
	1000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	1000 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL	BARE STEEL
	500 G	CHEMICAL PRODUCT	INACTIVE	SINGLE WALL WITH EXTERIOR LINER	CONCRETE

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010017346	DOUGLAS AIRCRAFT TORRANCE DISTANCE FROM SITE: 0 023 MILES DIRECTION FROM SITE: NORTHEAST	OTHER TYPE TANK	19503 S NORMANDIE TORRANCE, CA 90502 COUNTY· LOS ANGELES	(213) 533-7211	7346

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
27T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
28T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
29T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
30T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
31T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
32T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
33T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
34T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
35T	150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
36T	1 G	OTHER	ACTIVE	UNKNOWN	UNKNOWN
37T	1 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010045502	REDMAN EQUIPMENT MANUFACTURING DISTANCE FROM SITE: 0 164 MILES DIRECTION FROM SITE· SOUTHEAST	OTHER	19800 NORMANDIE AVE TORRANCE, CA 90502-1112 COUNTY. LOS ANGELES	DONALD W REDMAN (213) 321-8966	5502

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010044614	R R DONNELLEY & SONS COMPANY DISTANCE FROM SITE 0.245 MILES DIRECTION FROM SITE: SOUTHEAST	OTHER	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116 COUNTY· LOS ANGELES	R R DONNELLEY (213) 000-0000	4614

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010024695	GREENE'S READY MIX CONCRETE DISTANCE FROM SITE: 0.271 MILES DIRECTION FROM SITE: NORTHEAST	NOT SUPPLIED	19030 S NORMANDIE TORRANCE, CA 90502 COUNTY· LOS ANGELES	( ) -	4695

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	10000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	BARE STEEL
	10000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	BARE STEEL
	10000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	BARE STEEL

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010059687	VANITY MARBLE DIVISION DISTANCE FROM SITE: 0.274 MILES DIRECTION FROM SITE: NORTHEAST	OTHER TYPE TANK	19301 PACIFIC GATEWAY DR TORRANCE, CA 90502-1017 COUNTY. LOS ANGELES	( ) -	9687

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010059688	VANITY/MARBLE DIVISION DISTANCE FROM SITE: 0.274 MILES DIRECTION FROM SITE: NORTHEAST	CULTURED MARBLE	19301 PACIFIC GATEWAY DR TORRANCE, CA 90502-1017 COUNTY. LOS ANGELES	DAVE CONWAY (213) 532-1000	9688

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010013715	COCA COLA LOS ANGELES DISTANCE FROM SITE: 0.288 MILES DIRECTION FROM SITE. SOUTHEAST	OTHER	19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118 COUNTY· LOS ANGELES	COCA COLA CO (213) 746-5555	3715

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010017343	DOUGLAS AIRCRAFT CO DISTANCE FROM SITE: 0.308 MILES DIRECTION FROM SITE: NORTHEAST	OTHER TYPE TANK	190TH & NORMANDIE TORRANCE, CA 90502	(213) 533-7211	7343

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	12000 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN
	4000 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN
	4000 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN
	500 G	OIL	ACTIVE	UNKNOWN	UNKNOWN
	8500 G	OIL	ACTIVE	UNKNOWN	UNKNOWN
	8500 G	OIL	ACTIVE	UNKNOWN	UNKNOWN
	8500 G	OIL	ACTIVE	UNKNOWN	UNKNOWN
	10000 G	OIL	ACTIVE	UNKNOWN	UNKNOWN
	3000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	10000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	7500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	7500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	50000 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
	50000 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
	1000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	1000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
06010010421	CENTRAL SECURITY PATROL DISTANCE FROM SITE: 0 332 MILES DIRECTION FROM SITE: NORTHEAST	OTHER	1201 W 190TH ST GARDENA, CA 90248-4304 COUNTY. LOS ANGELES	UNKNOWN (213) 000-0000	421
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED
06010038441	N.E.C. DISTANCE FROM SITE: 0 355 MILES DIRECTION FROM SITE: NORTHWEST	OTHER	1411 W 190TH ST GARDENA, CA 90248-4324 COUNTY: LOS ANGELES	SUSAN GAREY (310) 329-8844	8441
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED
06010028852	JEAN PIERRE PRODUCTS INC DISTANCE FROM SITE: 0.373 MILES DIRECTION FROM SITE: SOUTHEAST	OTHER TYPE TANK	19750 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY: LOS ANGELES	(213) 532-3303	8852
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
06010028853	JEAN PIERRE PRODUCTS, INC DISTANCE FROM SITE: 0 373 MILES DIRECTION FROM SITE. SOUTHEAST	MFG.	19750 MAGELLAN DR TORRANCE, CA 90502-1104 COUNTY. LOS ANGELES	JACK GREEN (213) 532-3303	8853
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	2500 G	CHEMICAL PRODUCT	REMOVED	SINGLE WALL	STAINLESS STEEL
	2500 G	CHEMICAL PRODUCT	REMOVED	SINGLE WALL	STAINLESS STEEL
06010028815	JAUELIN ELECTRONICS DISTANCE FROM SITE: 0.383 MILES DIRECTION FROM SITE: SOUTHEAST	OTHER	19831 MAGELLAN DR TORRANCE, CA 90502-1107 COUNTY. LOS ANGELES	UNKNOWN (213) 000-0000	8815
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED
06010040543	OVERTON MOORE & ASSOCIATES INC DISTANCE FROM SITE. 0.404 MILES DIRECTION FROM SITE· NORTHEAST	OTHER	1125 W 190TH ST GARDENA, CA 90248-4337 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	543
OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010020652	FERRO UNION INC DISTANCE FROM SITE: 0.422 MILES DIRECTION FROM SITE: SOUTHEAST	OTHER	1000 W FRANCISCO TORRANCE, CA 90502 COUNTY: LOS ANGELES	ARNOLD MCCLINTOCK (213) 538-9900	652

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	9940 G	NOT REPORTED	ACTIVE	SINGLE WALL	BARE STEEL
	9940 G	NOT REPORTED	INACTIVE	SINGLE WALL	BARE STEEL
	8000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL

06010020340	FARMER BROTHERS COMPANY DISTANCE FROM SITE: 0.460 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER	20333 S NORMANDIE TORRANCE, CA 90509 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	340

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010026714	HOLIDAY INN INC DISTANCE FROM SITE: 0.506 MILES DIRECTION FROM SITE. SOUTHEAST	OTHER	19800 S VERMONT AVE TORRANCE, CA 90502-1126 COUNTY. LOS ANGELES	UNKNOWN (213) 000-0000	6714

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010002621	AMELCO ELECTRIC DISTANCE FROM SITE: 0 529 MILES DIRECTION FROM SITE: NORTHEAST	NOT SUPPLIED	19208 S VERMONT AVE GARDENA, CA 90248-4414 COUNTY. LOS ANGELES	(818) 000-0000	2621

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

06010038929	NEW YORK LIFE INS CO. DISTANCE FROM SITE: 0.531 MILES DIRECTION FROM SITE: NORTHEAST	NEW YORK LIFE INS. CO	19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY: LOS ANGELES	W D. EDWARD (310) 516-9176	8929

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010040612	P & M REALTY GROUP DISTANCE FROM SITE: 0 531 MILES DIRECTION FROM SITE: NORTHEAST	REALTY COMPANY	19191 S VERMONT AVE TORRANCE, CA 90502-1018 COUNTY: LOS ANGELES	UNK (310) 516-0641	612

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010030060	JOSTO INC DISTANCE FROM SITE: 0.536 MILES DIRECTION FROM SITE: NORTHWEST	OTHER	1645 W 190TH ST GARDENA, CA 90248-4309 COUNTY. LOS ANGELES	SUPERVISOR (213) 000-0000	60

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	10000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	FIBERGLASS
	10000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	FIBERGLASS
	10000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	FIBERGLASS
	10000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	FIBERGLASS
	6000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	BARE STEEL
	6000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	STAINLESS STEEL

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010041572	PACIFIC GATEWAY IV DISTANCE FROM SITE: 0.547 MILES DIRECTION FROM SITE: NORTHEAST	OTHER	990 W 190TH ST TORRANCE, CA 90502-1046 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	1572

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010027787	INTERNATIONAL LIGHT METALS DISTANCE FROM SITE: 0 597 MILES DIRECTION FROM SITE: NORTHWEST	OTHER	19200 S WESTERN AVE TORRANCE, CA 90501-1109 COUNTY: LOS ANGELES	UNKNOWN (000) 618-3000	7787

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010003031	ANDREX DEVELOPMENT CO DISTANCE FROM SITE: 0 607 MILES DIRECTION FROM SITE: NORTHEAST	OTHER	18880 S VERMONT AVE GARDENA, CA 90248-4111 COUNTY. LOS ANGELES	UNKNOWN (213) 000-0000	3031

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010055974	TOYOTA MOTOR SALES, U.S.A. DISTANCE FROM SITE: 0 633 MILES DIRECTION FROM SITE: NORTHWEST	CORP. HEADQUARTERS	19001 S WESTERN AVE TORRANCE, CA 90501-1106 COUNTY: LOS ANGELES	CARLOS URRUTIA (213) 618-4000	5974

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
UT440UN01	10000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
UT440SU02	10000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
UT440DE03	20000 G	NOT REPORTED	ACTIVE	SINGLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
UT440WA04	1000 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL
UT440WA05	550 G	OIL	ACTIVE	SINGLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED

06010060145	VIRCO MANUFACTURING CORP DISTANCE FROM SITE: 0.638 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER	1331 W TORRANCE TORRANCE, CA 90501 COUNTY· LOS ANGELES	E RAIGHN (213) 532-3570	145

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010009676	CAPITAL METALS PROCESSING DISTANCE FROM SITE: 0 659 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER	20000 S WESTERN AVE TORRANCE, CA 90501-1305 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	9676

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010027576	INDEPENDENT ARCO STATION DISTANCE FROM SITE: 0.668 MILES DIRECTION FROM SITE: NORTHWEST	FORMER GASOLINE STATION	1805 W 190TH ST TORRANCE, CA 90504-6201 COUNTY. LOS ANGELES	GARY PARTON (213) 327-8288	7576

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
SS158RE01R	6000 G	NOT REPORTED	INACTIVE	SINGLE WALL	BARE STEEL
SS158UN02R	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
SS158UN03R	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
SS158SU04R	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
SS158WA05R	550 G	OIL	INACTIVE	SINGLE WALL	BARE STEEL

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010033759	LOS ANGELES PAPERSTOCK DISTANCE FROM SITE: 0.688 MILES DIRECTION FROM SITE: SOUTHWEST	WASTEPAPER RECYCLING	20502 S DENKER LOS ANGELES, CA 90501 COUNTY: LOS ANGELES	C F SCHMITT (213) 533-0333	3759

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	12000 G	NOT REPORTED	ACTIVE	SINGLE WALL	BARE STEEL
	6000 G	NOT REPORTED	ACTIVE	SINGLE WALL	BARE STEEL
	6000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	BARE STEEL
	500 G	OIL	ACTIVE	SINGLE WALL	BARE STEEL

06010043271	PIONEER PAPER STOCK DIV DISTANCE FROM SITE: 0.688 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER TYPE TANK	20502 S DENKER TORRANCE, CA 90501 COUNTY: LOS ANGELES	(213) 533-0333	3271

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
1	12000 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
2	6000 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
3	6000 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN
4	550 G	OIL	ACTIVE	UNKNOWN	UNKNOWN

06010043225	PINETREE SERVICE CORPORATION DISTANCE FROM SITE: 0.696 MILES DIRECTION FROM SITE: NORTHEAST	GAS STATION	18602 S VERMONT AVE GARDENA, CA 90248-4107 COUNTY: LOS ANGELES	STAN BROBERG (213) 538-4248	3225

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010003030	ANDREX CORPORATION DISTANCE FROM SITE: 0.697 MILES DIRECTION FROM SITE: NORTHEAST	OTHER	18600 S VERMONT AVE GARDENA, CA 90248-4107 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	3030

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010056004	TOYOTA TECHNICAL CENTER USA IN DISTANCE FROM SITE: 0.721 MILES DIRECTION FROM SITE: NORTHWEST	OTHER	1630 W 186TH ST GARDENA, CA 90248-3807 COUNTY: LOS ANGELES	TOYOTA MOTOR CORP (213) 538-2570	6004

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010047521	RUBBER TECK DISTANCE FROM SITE: 0.726 MILES DIRECTION FROM SITE: NORTHEAST	OTHER TYPE TANK	19115 S HAMILTON AVE GARDENA, CA 90248-4401 COUNTY: LOS ANGELES	DICK AMANTE (213) 321-5541	7521

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
1	500 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN

06010041711	PACIFIC VAN & STORAGE CO INC DISTANCE FROM SITE: 0.735 MILES DIRECTION FROM SITE: SOUTHWEST	GAS STATION	1415 W TORRANCE TORRANCE, CA 90501 COUNTY: LOS ANGELES	DAVE WALL (213) 320-4270	1711

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	10000 G	NOT REPORTED	REMOVED	SINGLE WALL	FIBERGLASS
	2000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	FIBERGLASS

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010058657	UNOCAL SERVICE STATION 6075 DISTANCE FROM SITE: 0.742 MILES DIRECTION FROM SITE NORTHWEST	GASOLINE STATION	1875 W 190TH ST TORRANCE, CA 90504-6201 COUNTY: LOS ANGELES	CHONG CHUL KIM (213) 532-2655	8657

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
SS159WA01	550 G	OIL	ACTIVE	DOUBLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
SS159UN02R	10000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS159SU03R	10000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS159WA04R	550 G	OIL	REMOVED	SINGLE WALL	BARE STEEL
SS159SU05	12000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
SS159UN06	12000 G	REGULAR UNLEADED	ACTIVE	DOUBLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED

06010047107	ROMAR BUILDING CORP DISTANCE FROM SITE: 0.746 MILES DIRECTION FROM SITE: NORTHWEST	OTHER	18726 S WESTERN AVE GARDENA, CA 90248-3813 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	7107

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010002341	ALLIED-SIGNAL AEROSPACE CO. DISTANCE FROM SITE: 0 748 MILES DIRECTION FROM SITE: SOUTHWEST	MANUFACTURING	20225 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	STEVE SZAMBARIS (213) 512-2851	2341

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
UT437WA01	3000 G	OIL	ACTIVE	DOUBLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED
UT437DE02R	5000 G	NOT REPORTED	REMOVED	SINGLE WALL	BARE STEEL
UT437WA03R	3000 G	OIL	REMOVED	SINGLE WALL	BARE STEEL
UT437DE04R	20000 G	NOT REPORTED	REMOVED	SINGLE WALL	BARE STEEL
UT437WA05R	3000 G	OIL	REMOVED	SINGLE WALL	BARE STEEL
UT437UN06R	10000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
CT437RE07R	10000 G	NOT REPORTED	REMOVED	SINGLE WALL	BARE STEEL
UT437WA08R	550 G	OIL	REMOVED	SINGLE WALL	BARE STEEL
UT437SU09R	8000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL

06010002342	ALLIED-SIGNAL AEROSPACE CO. DISTANCE FROM SITE: 0 750 MILES DIRECTION FROM SITE: SOUTHWEST	AEROSPACE OVERHAUL & REPAIR	20251 S WESTERN AVE TORRANCE, CA 90501-1310 COUNTY: LOS ANGELES	BARRY SWITZER (213) 321-5000	2342

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
UT439WS01R	280 G	PETROLEUM	REMOVED	SINGLE WALL	BARE STEEL
UT439WT02R	280 G	OIL	REMOVED	SINGLE WALL	BARE STEEL
UT439WF03	10000 G	PETROLEUM	ACTIVE	SINGLE WALL	BARE STEEL
UT439JP04	30000 G	NOT REPORTED	ACTIVE	SINGLE WALL WITH EXTERIOR LINER	BARE STEEL
UT439JP05	30000 G	NOT REPORTED	ACTIVE	SINGLE WALL WITH EXTERIOR LINER	BARE STEEL
UT439JP06	30000 G	NOT REPORTED	ACTIVE	SINGLE WALL	BARE STEEL
UT439JP07	20000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	STEEL CLAD WITH FIBERGLASS REINFORCED

06010008962	CALIFORIA HIGHWAY PATROL DISTANCE FROM SITE: 0.762 MILES DIRECTION FROM SITE: SOUTHEAST	OTHER TYPE TANK	19700 HAMILTON AVE TORRANCE, CA 90502-1310 COUNTY. LOS ANGELES	(916) 322-5310	8962

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	12000 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010009067	CALIFORNIA HIGHWAY PATROL DISTANCE FROM SITE. 0.772 MILES DIRECTION FROM SITE· SOUTHEAST	OTHER TYPE TANK	19800 HAMILTON AVE TORRANCE, CA 90502-1312 COUNTY: LOS ANGELES	(213) 736-3151	9067

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	500 G	OIL	ACTIVE	UNKNOWN	UNKNOWN

06010031321	KOZIA BROTHERS, INCORPORATED DISTANCE FROM SITE: 0 777 MILES DIRECTION FROM SITE. NORTHWEST	OTHER	18654 S WESTERN AVE GARDENA, CA 90248-3827 COUNTY LOS ANGELES	UNKNOWN (213) 000-0000	1321

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010041713	PACIFIC VAN/STORAGE COMPANY DISTANCE FROM SITE: 0.783 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER	1455 W TORRANCE TORRANCE, CA 90501 COUNTY. LOS ANGELES	UNKNOWN (213) 000-0000	1713

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010000914	A LIMITED PARTERSHIP, FLETCHER DISTANCE FROM SITE: 0 790 MILES DIRECTION FROM SITE· NORTHEAST	INVESTMENT PROPERY	777 W 190TH ST GARDENA, CA 90248-4234 COUNTY: LOS ANGELES	WESLEY N. TAYLOR (213) 324-2445	914

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010050773	SHIN'S UNION 76 DISTANCE FROM SITE: 0.798 MILES DIRECTION FROM SITE. NORTHWEST	GAS STATION	18605 S WESTERN AVE GARDENA, CA 90248-3826 COUNTY: LOS ANGELES	UNKNOWN (213) 532-9623	773

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010058769	UNOCAL STATION #5131 DISTANCE FROM SITE: 0 798 MILES DIRECTION FROM SITE: NORTHWEST	GASOLINE STATION	18605 S WESTERN AVE GARDENA, CA 90248-3826 COUNTY: LOS ANGELES	DONG SEUNG SHIN (213) 532-9623	8769

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
SS154SU01	12000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	FIBERGLASS
SS154UN02	12000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	FIBERGLASS
SS154DE03	10000 G	NOT REPORTED	ACTIVE	SINGLE WALL	FIBERGLASS
SS154UN04R	10000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS154SU05R	10000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS154WA06R	280 G	OIL	REMOVED	SINGLE WALL	BARE STEEL

06010055708	TOMATO SYSTEMS, INC. DISTANCE FROM SITE: 0.815 MILES DIRECTION FROM SITE: NORTHWEST	GAS STATION	18564 S WESTERN AVE GARDENA, CA 90248-3825 COUNTY: LOS ANGELES	FRANK GRILLO (310) 323-0066	5708

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	550 G	OIL	INACTIVE	SINGLE WALL	BARE STEEL
	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010023705	GERISCH PRODUCTS INC DISTANCE FROM SITE: 0.849 MILES DIRECTION FROM SITE: SOUTHWEST	NOT SUPPLIED	20814 S NORMANDIE TORRANCE, CA 90602 COUNTY: LOS ANGELES	(213) 320-8180	3705
06010048241	SAME DISTANCE FROM SITE: 0 851 MILES DIRECTION FROM SITE. NORTHWEST	DEALERSHIP	18416 S WESTERN AVE GARDENA, CA 90248-3823 COUNTY: LOS ANGELES	UNK (213) 000-0000	8241
06010056002	TOYOTA TECH. DEV. CENTER DISTANCE FROM SITE. 0.860 MILES DIRECTION FROM SITE: NORTHWEST	AUTOMOTIVE TECHNICAL CENTER	2015 W 190TH ST TORRANCE, CA 90504-6203 COUNTY: LOS ANGELES	UNKNOWN ( ) -	6002
06010001794	AKZO COATINGS AMERICA INC DISTANCE FROM SITE; 0 871 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER TYPE TANK	20846 S NORMANDIE TORRANCE, CA 90502 COUNTY: LOS ANGELES	(213) 320-6800	1794
06010055875	TORRANCE H M.A PLANT DISTANCE FROM SITE: 0.880 MILES DIRECTION FROM SITE: SOUTHWEST	OTHER TYPE TANK	20860 S NORMANIE TORRANCE, CA 90502 COUNTY. LOS ANGELES	(213) 328-0700	5875

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	6000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL
	4000 G	NOT REPORTED	REMOVED	UNKNOWN	UNKNOWN
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED
UT499WA01R	550 G	UNKNOWN	REMOVED	UNKNOWN	UNKNOWN
UT499WA02	500 G	OIL	ACTIVE	DOUBLE WALL	BARE STEEL
ONE	8000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
TWO	8000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
THREE	8000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
FOUR	6000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
FIVE	6000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
SIX	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
SEVEN	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
SEVEN	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
NINE	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
TN	2500 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
ELEVEN	2500 G	REGULAR UNLEADED	ACTIVE	UNKNOWN	UNKNOWN
TWELVE	6000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
THIRTEEN	6000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
FOURTEEN	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
FIFTEEN	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
SIXTEEN	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
SEVENTEEN	5000 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
1	21150 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN
2	7800 G	NOT REPORTED	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010047095	ROLLINS TRUCKING DISTANCE FROM SITE. 0 911 MILES DIRECTION FROM SITE: SOUTHEAST	NOT SUPPLIED	20425 S HAMILTON CARSON, CA 90502 COUNTY: LOS ANGELES	(213) 537-3564	7095

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
7	20000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	FIBERGLASS

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010008624	CADO SYSTEMS CORP. DISTANCE FROM SITE: 0 912 MILES DIRECTION FROM SITE. NORTHWEST	COMPUTER SYSTEMS	2055 W 190TH ST TORRANCE, CA 90504-6222 COUNTY: LOS ANGELES	CHRIS VAN DEN BRINK (213) 323-8170	8624

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
UT444SU01R	10000 G	REGULAR UNLEADED	INACTIVE	SINGLE WALL	BARE STEEL

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010037758	MONTGOMERY WARD DISTANCE FROM SITE: 0.918 MILES DIRECTION FROM SITE: SOUTHEAST	NOT SUPPLIED	19751 S FIGUEROA CARSON, CA 90745 COUNTY: LOS ANGELES	(818) 000-0000	7758

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010042641	PEPSI COLA-WEST DISTANCE FROM SITE: 0.929 MILES DIRECTION FROM SITE: SOUTHEAST	DISTRIBUTOR	19700 S FIGUEROA CARSON, CA 90509 COUNTY: LOS ANGELES	(213) 327-4222	2641

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
1	12000 G	NOT REPORTED	ACTIVE	DOUBLE WALL	FIBERGLASS
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010042647	PEPSI-COLA BOTTLING GROUP DISTANCE FROM SITE: 0 929 MILES DIRECTION FROM SITE: SOUTHEAST	BOTTLING PLANT	19700 S FIGUEROA TORRANCE, CA 90745 COUNTY. LOS ANGELES	TONY GIOIA (213) 327-4222	2647

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	10000 G	NOT REPORTED	REMOVED	SINGLE WALL	BARE STEEL
	0 G	OIL	REMOVED	SINGLE WALL	CONCRETE
	8000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	CONCRETE
	7500 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	CONCRETE
	7500 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	CONCRETE

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010001622	AGAJANIAN ENTERPRISES, INC DISTANCE FROM SITE: 0.930 MILES DIRECTION FROM SITE. NORTHEAST	GAS STATION	18300 S VERMONT AVE GARDENA, CA 90248-4056 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	1622

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE	MAP ID
06010026357	HERTZ-PENSKE DISTANCE FROM SITE: 0 939 MILES DIRECTION FROM SITE SOUTHEAST	NOT SUPPLIED	19646 S FIGUEROA CARSON, CA 90745 COUNTY: LOS ANGELES	(818) 000-0000	6357

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN
	0 G	UNKNOWN	ACTIVE	UNKNOWN	UNKNOWN

06010051402	SMITH BROTHERS CRANE RENTAL DISTANCE FROM SITE. 0.950 MILES DIRECTION FROM SITE: NORTHWEST	NOT SUPPLIED	18119 LA SALLE AVE GARDENA, CA 90248-3608 COUNTY. LOS ANGELES	(818) 000-0000	1402

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010047215	ROOSEVELT MEMORIAL PARK DISTANCE FROM SITE: 0.956 MILES DIRECTION FROM SITE. NORTHEAST	OTHER	18255 S VERMONT AVE GARDENA, CA 90248-4008 COUNTY: LOS ANGELES	UNKNOWN (213) 329-1113	7215

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010001621	AGAJANIAN ENTERPRISES, INC DISTANCE FROM SITE: 0.966 MILES DIRECTION FROM SITE: NORTHEAST	GAS STATION	18240 S VERMONT AVE GARDENA, CA 90248-4009 COUNTY: LOS ANGELES	UNKNOWN (213) 000-0000	1621

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010037364	MOBIL SERVICE STATION 11-EDP DISTANCE FROM SITE: 0 982 MILES DIRECTION FROM SITE: NORTHWEST	MULTI-TANK OLD&NEW	18203 S WESTERN AVE GARDENA, CA 90248-3818 COUNTY: LOS ANGELES	JUNG, ALBERT Y. (310) 532-0844	7364

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
SS155UN01	10000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	FIBERGLASS
SS155UP02	8000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	FIBERGLASS
SS155SU03	6000 G	REGULAR UNLEADED	ACTIVE	SINGLE WALL	FIBERGLASS
SS155WA04	550 G	OIL	ACTIVE	DOUBLE WALL	FIBERGLASS
SS155UN05R	9940 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS155RE06R	8000 G	NOT REPORTED	REMOVED	SINGLE WALL	BARE STEEL
SS155SU07R	6000 G	REGULAR UNLEADED	REMOVED	SINGLE WALL	BARE STEEL
SS155WA08R	280 G	OIL	REMOVED	SINGLE WALL	BARE STEEL

ERIIS ID	REGULATED BY	FACILITY	ADDRESS	COUNTY	MAP ID
06025005100	LTANK	DOUGLAS AIRCRAFT CO DISTANCE FROM SITE: 0.023 MILES DIRECTION FROM SITE: NORTHEAST	19503 NORMANDIE AVE TORRANCE, CA 90502-1109	LOS ANGELES	5100
06025006258	CALSI	AMOCO CHEMICALS CORP (2) DISTANCE FROM SITE: 0.066 MILES DIRECTION FROM SITE: SOUTHEAST	1225 W 196TH ST TORRANCE, CA 90502-1102	LOS ANGELES	6258
06025004432	LTANK	TRICO INDUSTRIES DISTANCE FROM SITE: 0 128 MILES DIRECTION FROM SITE. SOUTHEAST	19706 NORMANDIE AVE TORRANCE, CA 90502-1111	LOS ANGELES	4432
06025004200	CALSI	MONTROSE CHEMICAL DISTANCE FROM SITE: 0.377 MILES DIRECTION FROM SITE: SOUTHWEST	20201 NORMANDIE AVE TORRANCE, CA 90502-1213	LOS ANGELES	4200
06025004829	LTANK	TOYOTA MOTOR SALES DISTANCE FROM SITE. 0 632 MILES DIRECTION FROM SITE: NORTHWEST	19001 WESTERN AVENUE S TORRANCE, CA 90509	LOS ANGELES	4829
06025004457	LTANK	UNKNOWN DISTANCE FROM SITE: 0.711 MILES DIRECTION FROM SITE: SOUTHEAST	VERMONT AVE AT DEL AMO BLVD LOS ANGELES, CA 90502	LOS ANGELES	4457
06025006230	CALSI	RUBBER TECK, INC DISTANCE FROM SITE: 0.727 MILES DIRECTION FROM SITE: NORTHEAST	19115 S HAMILTON AVE GARDENA, CA 90248-4401	LOS ANGELES	6230
06025004837	LTANK	UNOCAL STATION #6075 DISTANCE FROM SITE: 0.741 MILES DIRECTION FROM SITE: NORTHWEST	1875 190TH STREET W TORRANCE, CA 90504	LOS ANGELES	4837
06025004929	LTANK	THE CARSON ESTATES COMPANY DISTANCE FROM SITE: 0.747 MILES DIRECTION FROM SITE: SOUTHWEST	20225 WESTERN AVENUE S TORRANCE, CA 90501	LOS ANGELES	4929
06025004836	LTANK	UNOCAL STATION #5131 DISTANCE FROM SITE: 0.787 MILES DIRECTION FROM SITE: NORTHWEST	18605 WESTERN AVENUE S TORRANCE, CA 90248	LOS ANGELES	4836
06025004145	LTANK	AKZO COATINGS DISTANCE FROM SITE: 0.871 MILES DIRECTION FROM SITE: SOUTHWEST	20846 NORMANDIE AVE TORRANCE, CA 90502-1601	LOS ANGELES	4145
06025005923	LTANK	PEPSI COLA-WEST DISTANCE FROM SITE: 0.928 MILES DIRECTION FROM SITE: SOUTHEAST	19700 FIGUEROA ST CARSON, CA 90745-1003	LOS ANGELES	5923

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ERIIS ID EPA ID	FACILITY TYPE OF FACILITY	ADDRESS	COUNTY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06055021114 CAD982314114	PACIFIC GATEWAY GENERATOR	19524 S NORMANDIE TORRANCE, CA 90502	LOS ANGELES	0 008 MILES	NORTHEAST	1114
06055012167 CAD071900740	CROSSFIELD PRODUCTS CORP GENERATOR	19514 S NOMANDIE AVE TORRANCE, CA 90502	LOS ANGELES	0 015 MILES	NORTHEAST	2167
06055011444 CAD048489306	AMOCO CHEMS CORP GENERATOR	1225 W 196TH ST TORRANCE, CA 90502-1102	LOS ANGELES	0.065 MILES	SOUTHEAST	1444
06055016314 CAD981450828	TRICO INDUSTRIES GENERATOR	19706 NORMANDIE AVE TORRANCE, CA 90502-1111	LOS ANGELES	0 128 MILES	SOUTHEAST	6314
06055009892 CAD008247900	REDMAN EQUIPMENT & MFG CO GENERATOR	19800 NORMANDIE AVE TORRANCE, CA 90502-1112	LOS ANGELES	0.164 MILES	SOUTHEAST	9892
06055015545 CAD981417769	COMPUTER IMAGE SYSTEMS GENERATOR	19220 NORMANDIE AVE TORRANCE, CA 90502-1011	LOS ANGELES	0.183 MILES	NORTHEAST	5545
06055007032 CAC000810504	1X RSI HOME PRODUCTS GENERATOR	19106 NORMANDIE AVE TORRANCE, CA 90502-1010	LOS ANGELES	0.236 MILES	NORTHEAST	7032
06055012828 CAD098627516	R R DONNELLEY & SONS CO GENERATOR	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116	LOS ANGELES	0 245 MILES	SOUTHEAST	2828
06055017258 CAD981624406	APPLIED GRAPHICS TECHNOLOGIES,L.P. GENERATOR	19681 PACIFIC GATEWAY DR TORRANCE, CA 90502-1116	LOS ANGELES	0.245 MILES	SOUTHEAST	7258
06055020269 CAD982023681	PULSE INSTRUMENTS GENERATOR	1234 FRANCISCO ST TORRANCE, CA 90502-1206	LOS ANGELES	0.259 MILES	SOUTHEAST	269
06055028419 CAL000036263	CORCOM GENERATOR	1201 FRANCISCO ST TORRANCE, CA 90502-1207	LOS ANGELES	0.263 MILES	SOUTHEAST	8419
06055018731 CAD981691397	HYDRO RUBBER & PLASTIC INC GENERATOR	1200 FRANCISCO ST TORRANCE, CA 90502-1206	LOS ANGELES	0 265 MILES	SOUTHEAST	8731
06055036089 CAT080013634	TRI-LITE MFG CO INC GENERATOR	19780 PACIFIC GATEWAY DR TORRANCE, CA 90502-1131	LOS ANGELES	0.265 MILES	SOUTHEAST	6089
06055022014 CAD982411603	COCA COLA TORRANCE GENERATOR	19875 PACIFIC GATEWAY DR TORRANCE, CA 90502-1118	LOS ANGELES	0.288 MILES	SOUTHEAST	2014
06055020550 CAD982033250	MAZAK SALES & SERVICE WEST GENERATOR	1333 W 190TH ST GARDENA, CA 90248-4306	LOS ANGELES	0.314 MILES	NORTHWEST	550
06055007632 CAC000817552	1X HALFERTY CO GENERATOR	1411 W 190TH ST STE 675 GARDENA, CA 90248-4327	LOS ANGELES	0.355 MILES	NORTHWEST	7632
06055019901 CAD982009540	HEIDELBERG WEST INC GENERATOR	19730 MAGELLAN DR TORRANCE, CA 90502-1104	LOS ANGELES	0 370 MILES	SOUTHEAST	9901
06055008687 CAC000830488	1X DEPT OF COMMERCE - NOAA GENERATOR	20201 NORMANDIE AVE TORRANCE, CA 90502	LOS ANGELES	0 376 MILES	SOUTHWEST	8687
06055009874 CAD008242711	MONTROSE CHEMICAL CORP OF CALIFORNIA GENERATOR	20201 NORMANDIE AVE TORRANÇE, CA 90502	LOS ANGELES	0 376 MILES	SOUTHWEST	9874

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ERIIS ID EPA ID	FACILITY TYPE OF FACILITY	ADDRESS	COUNTY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06055010594 CAD009534801	ACE CLEANWATER ENTERPRISE GENERATOR	19815 MAGELLAN DR TORRANCE, CA 90502-1107	LOS ANGELES	0.380 MILES	SOUTHEAST	594
06055020775 CAD982042103	ACE CLEARWATER ENTERPRISES GENERATOR	19815 MAGELLAN DR TORRANCE, CA 90502-1107	LOS ANGELES	0 380 MILES	SOUTHEAST	775
06055021076 CAD982060659	MARITZ COMMUNICATIONS CO GENERATOR	1515 W 190TH ST GARDENA, CA 90248-4319	LOS ANGELES	0.427 MILES	NORTHWEST	1076
06055010151 CAD008352205	JONES CHEMICALS INC GENERATOR	1401 DEL AMO BLVD TORRANCE, CA 90501-1630	LOS ANGELES	0 456 MILES	SOUTHWEST	151
06055020136 CAD982018970	FARMER BROS CO GENERATOR	20333 S NORMANDIE TORRANCE, CA 90502	LOS ANGELES	0.460 MILES	SOUTHWEST	136
06055030797 CAL000048868	R R DONNELLEY & SONS COMPANY GENERATOR	19603 S VERMONT AVE TORRANCE, CA 90502-1123	LOS ANGELES	0.489 MILES	SOUTHEAST	797
06055011385 CAD046459905	TELEDYNE SPRAGUE ENGINEERING GENERATOR	19300 S VERMONT AVE GARDENA, CA 90248-4415	LOS ANGELES	0 512 MILES	NORTHEAST	1385
06055003632 CAC000681000	1X PRENTISS PROPERTIES GENERATOR	970 W 190TH ST TORRANCE, CA 90502-1000	LOS ANGELES	0.556 MILES	NORTHEAST	3632
06055009612 CAD000627463	NORTHROP CORP-AIRCRAFT DIV GENERATOR	19200 S WESTERN AVE TORRANCE, CA 90501-1109	LOS ANGELES	0 597 MILES	NORTHWEST	9612
06055011061 CAD030398622	INTERNATIONAL LIGHT METAL CORP GENERATOR	19200 S WESTERN AVE TORRANCE, CA 90501-1109	LOS ANGELES	0.597 MILES	NORTHWEST	1061
06055023818 CAL000002790	EXXON RAS #7-3944 GENERATOR	18526 S NORMANDIE AVE GARDENA, CA 90248-4006	LOS ANGELES	0.620 MILES	NORTHWEST	3818
06055018167 CAD981664261	TOYOTA MOTOR SALES USA INC GENERATOR	19001 S WESTERN AVE TORRANCE, CA 90501-1106	LOS ANGELES	0.633 MILES	NORTHWEST	8167
06055002725 CAC000670736	1X PERCY ALEXANDER GENERATOR	1017 W 204TH ST TORRANCE, CA 90502-1441	LOS ANGELES	0.640 MILES	SOUTHEAST	2725
06055035506 CAL922555288	TOYOTA TECHNICAL CENTER GENERATOR	1850 W 195TH ST TORRANCE, CA 90501-1111	LOS ANGELES	0 663 MILES	NORTHWEST	5506
06055002497 CAC000668064	1X SERVALL PKG IND GENERATOR	20550 DENKER AVE TORRANCE, CA 90501-1645	LOS ANGELES	0.713 MILES	SOUTHWEST	2497
06055010292 CAD008489023	RUBBER TECK INC GENERATOR	19115 S HAMILTON AVE GARDENA, CA 90248-4401	LOS ANGELES	0 726 MILES	NORTHEAST	292
06055021463 CAD982338436	UNOCAL SS 6075 GENERATOR	1875 W 190TH ST TORRANCE, CA 90504-6201	LOS ANGELES	0.742 MILES	NORTHWEST	1463
06055035993 CAT080010663	AIRESEARCH MFG COMP OF CALIF GENERATOR	20225 S WESTERN AVE TORRANCE, CA 90501-1310	LOS ANGELES	0.748 MILES	SOUTHWEST	5993
06055022944 CAD982506818	GARRETT GENERAL AVIATION GENERATOR	20251 S WESTERN AVE TORRANCE, CA 90501-1310	LOS ANGELES	0 750 MILES	SOUTHWEST	2944

ERIIS ID EPA ID	FACILITY TYPE OF FACILITY	ADDRESS	COUNTY	DISTANCE FROM SITE	DIRECTION FROM SITE	MAP ID
06055031295 CAL000060870	FIRST IMAGE MANAGEMENT COMPANY GENERATOR	19701 HAMILTON AVE STE 130 TORRANCE, CA 90502-1304	LOS ANGELES	0.760 MILES	SOUTHEAST	1295
06055020937 CAD982053779	PACIFIC ENVIRONMENTAL MANAGEMENT GENERATOR	777 W 190TH ST GARDENA, CA 90248-4234	LOS ANGELES	0.790 MILES	NORTHEAST	937
06055017621 CAD981644636	UNOCAL SVC STA #5131 GENERATOR	18605 S WESTERN AVE GARDENA, CA 90248-3826	LOS ANGELES	0 798 MILES	NORTHWEST	7621
06055018415 CAD981677719	ART KUDOS TTOYOTA OF GARDENA GENERATOR	18416 S WESTERN AVE GARDENA, CA 90248-3823	LOS ANGELES	0 851 MILES	NORTHWEST	8415
06055020458 CAD982030173	SIKKENS AEROSPACE FINISHES GENERATOR	20846 NORMANDIE AVE TORRANCE, CA 90502-1601	LOS ANGELES	0.871 MILES	SOUTHWEST	458
06055034848 CAL920885743	ECOLOGY CONTROL INDUSTRIES INC GENERATOR	20846 NORMANDIE AVE TORRANCE, CA 90502-1601	LOS ANGELES	0 871 MILES	SOUTHWEST	4848
06055020668 CAD982039323	LA USD GARDENA HIGH SCHOOL GENERATOR	1301 W 182ND ST GARDENA, CA 90248-3322	LOS ANGELES	0.872 MILES	NORTHEAST	668
06055016006 CAD981440068	HUGHES SPACE AND COMMUNICATIONS CO(HSC) GENERATOR	19300 GRAMERCY PL TORRANCE, CA 90501-1131	LOS ANGELES	0.873 MILES	NORTHWEST	6006
06055019583 CAD981994809	ROLLINS LEASING CORP GENERATOR	20425 HAMILTON AVE TORRANCE, CA 90502-1513	LOS ANGELES	0 911 MILES	SOUTHEAST	9583
06055001056 CAC000566376	1X BYROM RADIATOR SERVICE GENERATOR	20922 NORMANDIE AVE TORRANCE, CA 90502-1602	LOS ANGELES	0 923 MILES	SOUTHWEST	1056
06055021847 CAD982374241	RYDER TRUCK RENTAL GENERATOR	19700 FIGUEROA ST CARSON, CA 90745-1003	LOS ANGELES	0.929 MILES	SOUTHEAST	1847
06055017151 CAD981613557	PENSKE TRUCK LEASING CO., L P. GENERATOR	19646 FIGUEROA ST CARSON, CA 90745-1001	LOS ANGELES	0 939 MILES	SOUTHEAST	7151
06055030935 CAL000057829	TRD U S A INC GENERATOR	18240 S WESTERN AVE GARDENA, CA 90248-3819	LOS ANGELES	0.965 MILES	NORTHWEST	935
06055020027 CAD982014763	DOUGLAS AIRCRAFT COMPANY GENERATOR	21000 NORMANDIE AVE TORRANCE, CA 90502-1603	LOS ANGELES	0.976 MILES	SOUTHWEST	27
06055030566 CAL000047634	IWASAKI IMAGES OF AMERICA GENERATOR	20460 GRAMERCY PL TORRANCE, CA 90501-1513	LOS ANGELES	0.980 MILES	SOUTHWEST	566
06055028744 CAL000037854	COLLISION CAR CENTER INC GENERATOR	1858 DEL AMO BLVD TORRANCE, CA 90501-1301	LOS ANGELES	0.986 MILES	SOUTHWEST	8744

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ERIIS ID WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT FACILITY PHONE	FACILITY TYPE	MAP ID
06024000883 4 190039NUR	SOUTHERN CALIFORNIA DISPOSAL COMPANY DISTANCE FROM SITE: 0.738 MILES DIRECTION FROM SITE: NORTHEAST	186TH & VERMONT GARDENA, CA 00000 FRESNO COUNTY			883

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	WORKPLAN APPROVED	NONE	UNDER REVIEW	4TH QUARTER REC. 01/24/90	NONE	NONE	NONE	NONE

Unplottable Sites

The remaining report pages list additional environmental sites that have been selected based on geographic criteria unique to your study site. They are classified as "unplottable sites" and require further investigation to assess their potential impact on your site.

How to Evaluate Unplottable Sites

Step 1
Streets Within the Radius: the following page is an alphabetical index of all streets that intersect or are contained within the largest study radius (usually one mile).

Step 2
Cross-Reference: use the "Streets Within the Radius" index to cross-reference the unplottable sites. For example, if Maple Avenue and Oak Avenue are listed in the street index, then any unplottable sites with a Maple Avenue or Oak Avenue address should be checked for possible impact on study site.

Questions on ERIIS' Proprietary Geocoding?

We're happy to answer any questions you might have about our data processing and **point-geocoding** (assigning a latitude and longitude to each address). Just give us a call on our toll-free number at (800) 989-0402 and let us know what state you're calling from. Our customer service staff is available from 8 a.m. to 8 p.m. (EST).

The ASTM Standard Practice For Environmental Site Assessments

As stated in the recently published **Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process** (E1527) by the American Society for Testing and Materials (ASTM):

> "For large databases with numerous facility records (such as RCRA hazardous waste generators and registered underground storage tanks), the records are not practically reviewable unless they can be obtained from the source agency in the smaller geographic area of ZIP code (3.3.24)."

Therefore, this Report contains information available by latitude/longitude or by ZIP code. If your research requires environmental records for which only city or county information is available (i.e., no valid street or ZIP code) ERIIS will include this data at no extra charge.

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ERIIS ID FACILITY ID NPDES_NUM	FACILITY FACILITY ADDRESS FACILITY COUNTY	FACILITY CONTACT FACILITY PHONE	AGENCY AGENCY ADDRESS	FACILITY TYPE NATURE OF WASTE WASTE TYPE	MAP ID
06041002023 4B192090001 CA0058726	TORRANCE HEAT 19800 NORMANDIE AVE TORRANCE, CA 90502-1112 LOS ANGELES	RICHARD WILSON (310) 321-8966 DISTANCE FROM SITE: 0 164 MILES DIRECTION FROM SITE: SOUTHEAST	REDMAN EQUIPMENT & MFG CO 19800 NORMANDIE AVE TORRANCE, CA 90502	INDUSTRIAL DESIGNATED STORMWATER RUNOFF	2023
06041001715 4B192047001 CA0002992	READY-MIXED CONCRETE 19030 NORMANDIE AVE TORRANCE, CA 90502-1009 LOS ANGELES	JOHN STEENHOVEN (310) 532-4600 DISTANCE FROM SITE: 0 271 MILES DIRECTION FROM SITE: NORTHEAST	GREENE'S READY MIXED CONCRETE P.O.BOX 3336 TORRANCE, CA 90510	INDUSTRIAL DESIGNATED STORMWATER RUNOFF	1715
06041001663 4B192032002 CA0001414	TORRANCE FACILITY 190TH ST & NORMANDIE TORRANCE, CA 90502 LOS ANGELES	ROB TUELL (213) 593-7859 DISTANCE FROM SITE: 0.308 MILES DIRECTION FROM SITE. NORTHEAST	DOUGLAS AIRCRAFT CO 3855 LAKEWOOD BLVD. CODE 74-41 LONG BEACH, CA 908460001	INDUSTRIAL DESIGNATED MISCELLANEOUS	1663
06041001750 4B192051001 CA0001767	TORRANCE FACILITY 19200 S WESTERN AVE TORRANCE, CA 90501-1109 LOS ANGELES	NOT REPORTED (213) 618-3000 DISTANCE FROM SITE: 0 597 MILES DIRECTION FROM SITE: NORTHWEST	INTERNATIONAL LIGHT METALS COR 19200 S WESTERN AVE TORRANCE, CA 90509	INDUSTRIAL DESIGNATED STORMWATER RUNOFF	1750

STREET NAME
179th Pl
W 179th St
W 180th St
182nd St
W 182nd St
W 183rd St
W 184th St
185th St
W 185th St
186th St
W 186th St
187th Pl
W 187th St
190th St
W 190th St
195th St
W 196th St
W 197th St
W 204th St
205th St
W 205th St
W 206th St
W 207th St
W 208th St
W 209th St
Anelo Ave
Avery Pl
W Baron St
Berendo Ave
S Berendo Ave
Brighton Way
S Brighton Ave
Broadwell Ave
Brody Ave
Budlong Ave
S Budlong Ave
S Catalina Ave
Curt Pl
Daisy Ave
Dalton Ave
S Dalton Ave
Del Amo Blvd
Denker Ave
S Denker Ave
Doble Ave
Dorman Ave
Electric St
Evelyn Ave
Felder St
Figueroa St
S Figueroa St
Francisco St
Gramercy Pl
Granville Ave
W Greenhedge St
Halldale Ave
Hamilton Ave
S Hamilton St
Harbor Frwy
Harbor Frwy Ramp
Harvard Blvd
S Harvard Blvd
Hobart Blvd
W Jon St
S Kenwood Ave
Knox St
La Salle Ave
Louise Ave
Magellan Dr
Manhattan Pl
S Mariposa Ave
W Milton St
Molina Lane
S New Hampshire Ave
Normandie Ave
S Normandie Ave
Pacific Gateway Dr
S Raymond Ave
S Royal Blvd
Rumbold St
San Diego Frwy
San Diego Frwy Ramp
St Andrews Pl
W Torrance Pl
Vermont Ave
S Vermont Ave
Western Ave
W del Amo Blvd

ERIIS SUMMARY OF UNPLOTTABLE SITES
(Facilities sorted alphabetically within ZIP Code)

Dec 22, 1994

S ID.	FACILITY/STREET	CITY/STATE/ZIP/COUNTY	DATABASE
06024000857	ADAMS INDUSTRIES (CARSON-MARTIN ADAMS DUMP) 213ST & DOLORS STREET	CARSON, CA COUNTY: FRESNO	SWAT
06024000996	ALAMEDA STREET-VERNON 2900 SOUTH ALAMEDA	CARSON, CA COUNTY: FRESNO	SWAT
06006000012	ASCON LANDFILL 1612 BLINN AVE.	CA COUNTY: LOS ANGELES	OPENDUMP
06024000860	BERADA CORPORATION-GARDENA VALLEY NO. 4 801 TORRANCE	CARSON, CA COUNTY: FRESNO	SWAT
06024000853	BERADA CORPORATION-GARDENA VALLEY NO. 5 100 WEST TORRANCE BOULVARD	CARSON, CA COUNTY: FRESNO	SWAT
06024000861	BERADA CORPORATION-GARDENA VALLEY NO. 6 213TH STREET	CARSON, CA COUNTY: FRESNO	SWAT
06024000862	BKK CORPORATION-CARSON 19200 SOUTH MAIN	CARSON, CA COUNTY: FRESNO	SWAT
06024001001	BLOCKER 21600 SOUTH BONITA STREET	CARSON, CA COUNTY: FRESNO	SWAT
06024001158	BROWN DUMP 19001 SOUTH FIGUEROA STREET	CARSON, CA COUNTY: FRESNO	SWAT
06024001979	BUILDING 352 UNDERGROUND TANK SITE # 5 IAS	CA COUNTY: LOS ANGELES	SWAT
06024002009	BUILDING 603 DISPOSAL PIT SITE # 1 IAS	CA COUNTY. LOS ANGELES	SWAT
.4002010	BURIED GASOLINE SUPPLY PIPE LEAK SITE # 12 IAS	CA COUNTY: LOS ANGELES	SWAT
06024000874	CHURCH DUMP-WILMINGTON SANDLESON ST/BLINN AVE	CARSON, CA COUNTY: FRESNO	SWAT
06024001239	COLUMBIA STEEL-TORRANCE CARVERS AVE & VANNESS	TORRANCE, CA COUNTY: FRESNO	SWAT
06024001989	DPDO SCRAP YARD SITE # 6 IAS	CA COUNTY: LOS ANGELES	SWAT
06042000354	ELSMERE CANYON LANDFILL SANTA CLARITA 1 MI E OF ANTELOP VAL FWY	TORRANCE, CA COUNTY: LOS ANGELES	SWIS
06024001935	FCTC RUBBLE DISPOSAL AREA SITE # 1 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001997	FIRE FIGHTING DRILL FIELD SITE # 5 IAS	CA COUNTY: LOS ANGELES	SWAT
06024002011	FUEL FARM OPERATION AREAS SITE # 1 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001889	FUEL FARM SITE SITE #9 OLF IMP/# 1 NAS MIR	CA COUNTY: LOS ANGELES	SWAT
06024000837	GARDENA VALLEY NO. 1 & 2 101 WEST TORRANCE BOULVARD	CARSON, CA COUNTY: FRESNO	SWAT
06024001047	GARDENA-174TH & WESTERN 174TH & WESTERN	GARDENA, CA COUNTY: FRESNO	SWAT
4001890	GOLF COURSE CHEMICAL RINSE AREA SITE # 3 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001891	GOLF COURSE GARBAGE DISPOSAL AREA SITE # 5 IAS	CA COUNTY: LOS ANGELES	SWAT
06024000941	GREEN HOG RANCH-TORRANCE 2000 EAST BERYL STREET	TORRANCE, CA COUNTY. FRESNO	SWAT

ERIIS SUMMARY OF UNPLOTTABLE SITES
(Facilities sorted alphabetically within ZIP Code)

Dec 22, 1994

ID.	FACILITY/STREET	CITY/STATE/ZIP/COUNTY	DATABASE
06024001187	HALLERMAN, MARTIN FIGUEROA & SAN DIEGO FWY	CARSON, CA COUNTY: FRESNO	SWAT
06024001292	HARGROVE NE OF SEPULVEDA & ALAMEDA	CARSON, CA COUNTY: FRESNO	SWAT
06024001096	HIGGINS BRICK & TILE COMPANY-WEST ARESIA S OF ARTESIA BTW CASMIR & VANN	TORRANCE, CA COUNTY: FRESNO	SWAT
06024001860	JACUMBA SWDS	CA COUNTY: LOS ANGELES	SWAT
06024001181	KATZ DUMP-CARSON BROADWAY & VICTORIA	CARSON, CA COUNTY: FRESNO	SWAT
06024001182	KOERNER 406 WEST GRIFFITH STREET	CARSON, CA COUNTY: FRESNO	SWAT
06024001131	LOS ANGELES COUNTY PARKS AND RECLAMATION-TORRANCE 3136 NORTH MANHANTON BEACH BLV	TORRANCE, CA COUNTY: FRESNO	SWAT
06024001106	LOS ANGELES COUNTY ROAD DEPARTMENT-CARSON GREENBRAE BLVD & CENTRAL	CARSON, CA COUNTY: FRESNO	SWAT
06024001998	MCAF DRAINAGE DITCH SITE # 4 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001990	MESSHALL GREASE DISPOSAL PITS SITE # 2 IAS	CA COUNTY: LOS ANGELES	SWAT
06024000908	MOR-GLOW PAINT COMPANY 18937 SOUTH MAIN	CARSON, CA COUNTY: FRESNO	SWAT
.4002013	NEW PAINT SHOP SITE SITE # 3 IAS	CA COUNTY: LOS ANGELES	SWAT
06042000082	NOT APPLICABLE 18158 CENTRAL STREET	CA COUNTY: LOS ANGELES	SWIS
06024001992	PEST CONTROL WASHRACK DRAINAGE DITCH SITE # 3 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001895	PROPERTY DISPOSAL AREA SITE # 10 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001999	REFUSE BURNING AREA SITE # 1 IAS	CA COUNTY: LOS ANGELES	SWAT
06024001926	RUBBLE DUMPS SITE # 10 IAS	CA COUNTY: LOS ANGELES	SWAT
06024000975	RUSSEL, G.M 131ST ST & FIGUEROA	GARDENA, CA COUNTY: FRESNO	SWAT
06024001861	SAN DIEGO COUNTY-OCCOTILLO WELLS N HWY 78	CA COUNTY: LOS ANGELES	SWAT
06024001205	SEPULVEDA & VERMONT-CARSON SEPULVEDA & VERMONT AVE	CARSON, CA COUNTY: FRESNO	SWAT
06024001314	SHELL CHEMICAL COMPANY-CARSON NO. 1 19204 SOUTH FIGUEROA	CARSON, CA COUNTY: FRESNO	SWAT
06024002044	SOUTH BAY DISPOSAL SITE	CA COUNTY: LOS ANGELES	SWAT
4001236	STANDARD OIL COMPANY-TORRANCE SE OF SEPULVEDA & HAWTHORNE BL	TORRANCE, CA COUNTY. FRESNO	SWAT
06024001035	SUPERIOR OIL COMPANY-CARSON 24900 SOUTH VERMONT	CARSON, CA COUNTY: FRESNO	SWAT
06006000010	THREE POINTS DISPOSAL SITE AVE A-8 SOUTH OF KERN COUNTY LINE	CA COUNTY: LOS ANGELES	OPENDUMP

ERIIS SUMMARY OF UNPLOTTABLE SITES
(Facilities sorted alphabetically within ZIP Code)

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S ID	FACILITY/STREET	CITY/STATE/ZIP/COUNTY	DATABASE
06024001321	VERMONT & 183RD STREET-GARDENA WEST OF VERMONT AT 183RD ST	GARDENA, CA COUNTY. FRESNO	SWAT
06024001322	VERMONT & KNOX-CARSON VERMONT AVE & KNOX ST	CARSON, CA COUNTY: FRESNO	SWAT
06042000488	WESTERN WASTE INDUSTRIES TRANSFER STATIO 18803 SOUTH MAIN STREET	CARSON, CA COUNTY: LOS ANGELES	SWIS
06003035030	BUILDERS EMPORIUM 955 SEPULVEDA BLVD	TORRANCE, CA 90502-2735 COUNTY: LOS ANGELES	FINDS
06005024670	EXXON #7-3980 921 SEPULVEDA BLVD	TORRANCE, CA 90502-2735 COUNTY: LOS ANGELES	LUST
06003016991	FEDERATED DEPT STORES 8510 W SEPULVEDA BLVD	TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS
06008012507	JEFF BIGGS SURFBOARDS 22414 S NORMANDIE UNIT F	TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_SG
06003047206	JEFF BIGGS SURFBOARDS 22414 S NORMANDIE UNIT F	TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS
06040006306	KLINGLER COMPANY 19122 S VERMONT AVE	TORRANCE, CA 90502-1020 COUNTY: LOS ANGELES	CALSITES
06025004472	LAWSON ENTERPRISES, INC 19500 S. NORMANDIE	TORRANCE, CA 90502 COUNTY: LOS ANGELES	CORTS
06025005995	MOBIL OIL CORP. 11-MAF 21700 VERMONT	TORRANCE, CA 90502 COUNTY: LOS ANGELES	CORTS
10040215	ONE STOP AUTO 1209 W 190TH ST	TORRANCE, CA 90502-1004 COUNTY: LOS ANGELES	UST
06008009893	ORKIN PEST CONTROL CO INC 20706 S NORMANDY	TORRANCE, CA 90502 COUNTY: LOS ANGELES	RCRIS_SG
06003043153	ORKIN PEST CONTROL COMPANY INCORPORATED 20706 S NORMANDY	TORRANCE, CA 90502 COUNTY: LOS ANGELES	FINDS
06055013346	PACIFIC BELL 19310 PACIFIC GATEWAY DR # 11	TORRANCE, CA 90502-1031 COUNTY: LOS ANGELES	HWIS
06010041687	PACIFIC TELEPHONE/TELEGRAPH CO 19310 PACIFIC GY	LOS ANGELES, CA 90502 COUNTY: LOS ANGELES	UST
06001003275	PONDEROSA LANDFILL VERMONT AVENUE	TORRANCE, CA 90502 COUNTY: LOS ANGELES	CERCLIS
06003022538	RALPHS GROCERY CO NO 132 851 SEPULVEDA BLVD	TORRANCE, CA 90502-3003 COUNTY: LOS ANGELES	FINDS
06040010383	ROYAL BOULEVARD CLASS III DISPOSAL SITE ROYAL BLVD BTWN 209TH AND 210TH STREETS	TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES
06040006129	SHELL TORRANCE 19821 HAMILTON AVE 20000 VERMONT AVE	TORRANCE, CA 90502 COUNTY: LOS ANGELES	CALSITES
06003033268	TEXACO SERVICE STATION 19008 S NORMANDY	LOS ANGELES, CA 90502 COUNTY: LOS ANGELES	FINDS
06006000011	155TH ST DISPOSAL SITE NEAR 155TH ST. AND AVE. H	CA COUNTY: LOS ANGELES	OPENDUMP

ERIIS ENVIRONMF L DATA REPORT
COMPREHENSIVE ENVIRONMENTAL RESPONSE, C ENSATION, AND LIABILITY INFORMATION SYSTEM
CERCLIS - UNPLO TABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID EPA ID	FACILITY	FACILITY ADDRESS	NPL STATUS INCIDENT CATEGORY
06001003275 CAD000568865	PONDEROSA LANDFILL	VERMONT AVENUE TORRANCE, CA 90502 COUNTY: LOS ANGELES	NOT ON THE NPL BLANK

SITE EVENT(S)	COMPLETE DATE	ACTION PRIORITY
DISCOVERY	08/12/94	BLANK

ERIIS ID EPA ID RCRA COMPLIANT	FACILITY TOTAL NUMBER OF CORRECTIVE ACTIONS NUMBER OF HIGH PRIORITY NCAPS	ADDRESS	RAATS ISSUE DATE RAATS ACTION/STATUS RAATS PENALTIES
06008009893 CAD982435265 Y	ORKIN PEST CONTROL CO INC 0 0	20706 S NORMANDY TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS

REPORTED WASTE CODES
D013
P004

06008012507 CAD982522419 Y	JEFF BIGGS SURFBOARDS 0 0	22414 S NORMANDIE UNIT F TORRANCE, CA 90502 COUNTY: LOS ANGELES	FACILITY NOT REPORTED IN RAATS

REPORTED WASTE CODES

ERIIS ENVIRONM .L DATA REPORT
FACILITY I. X SYSTEM
FINDS - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID EPA ID	FACILITY		FACILITY ADDRESS	SIC CODE(S)
06003016991 CAD981408713	FEDERATED DEPT STORES		8510 W SEPULVEDA BLVD TORRANCE, CA 90502	NOT REPORTED
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		
06003033268 CAD982010704	TEXACO SERVICE STATION		19008 S NORMANDY LOS ANGELES, CA 90502	NOT REPORTED
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		
06003043153 CAD982435265	ORKIN PEST CONTROL COMPANY INCORPORATED		20706 S NORMANDY TORRANCE, CA 90502	NOT REPORTED
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		
06003047206 CAD982522419	JEFF BIGGS SURFBOARDS		22414 S NORMANDIE UNIT F TORRANCE, CA 90502	5091
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		
06003035030 CAD982032641	BUILDERS EMPORIUM		955 SEPULVEDA BLVD TORRANCE, CA 90502-2735	NOT REPORTED
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		
06003022538 CAD981583032	RALPHS GROCERY CO NO 132		851 SEPULVEDA BLVD TORRANCE, CA 90502-3003	NOT REPORTED
	TRACKING PROGRAM RCRIS	LAST UPDATE 09/23/93		

ERIIS ID FACILITY	STREET	CITY	STATE	ZIP	COUNTY
06006000010 THREE POINTS DISPOSAL SITE	AVE. A-8 SOUTH OF KERN COUNTY LINE		CA		LOS ANGELES
06006000011 155TH ST DISPOSAL SITE	NEAR 155TH ST. AND AVE. H		CA		LOS ANGELES
06006000012 ASCON LANDFILL	1612 BLINN AVE.		CA		LOS ANGELES

NONCOMPLIANCE CODES	01	02	03	04	05	06	07	08	09	10	11
VIOLATION(S)	Y		Y			Y	Y		Y		Y
NONCOMPLIANCE CODES	01	02	03	04	05	06	07	08	09	10	11
VIOLATION(S)	Y		Y			Y	Y		Y		Y
NONCOMPLIANCE CODES	01	02	03	04	05	06	07	08	09	10	11
VIOLATION(S)								Y			

NON-COMPLIANT CODES: 01 = FLOOD PLAINS
02 = ENDANGERED SPECIES
03 = SURFACE WATER
04 = GROUND WATER
05 = APPLICATION TO FOOD-CHAIN CROPLAND
06 = DISEASE
07 = AIR
08 = GASES
09 = FIRES
10 = BIRD/AIRCRAFT HAZARD
11 = ACCESS

ERIIS ENVIRON' TAL DATA REPORT
CALIFO CALSITES
CALSITES - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID FACILITY ID	FACILITY	ADDRESS	CALSITE STATUS GROUNDWATER STATUS	CALSITE STATUS DATE
06040006129 19280082	SHELL TORRANCE	19821 HAMILTON AVE 20000 VERMONT AVE TORRANCE 90502	PRELIMINARY ENDANGERMENT ASSESSMENT REQ - LOW NOT REPORTED	01/22/88
06040010383 19490205	ROYAL BOULEVARD CLASS III DISPOSAL SITE	ROYAL BLVD BTWN 209TH AND 210TH STREETS TORRANCE 90502	BACKLOG - POTENTIAL AWP SITE NO KNOWN GW CONTAMINATION	11/30/87
06040006308 19280291	KLINGLER COMPANY	19122 S VERMONT AVE TORRANCE 90502	NO FURTHER ACTION FOR DTSC NOT REPORTED	06/08/83

ERIIS ENVIRONM \L DATA REPORT
CALIFORNIA LEAKING U IGROUND STORAGE TANKS
LUST - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID	FACILITY	ADDRESS	COUNTY
06005024670	EXXON #7-3980	921 SEPULVEDA BLVD TORRANCE, CA 90502-2735	LOS ANGELES

REPORT DATE	CASE TYPE	SUBSTANCE	ABATEMENT METHOD	STATUS
06/30/1992	UNDEFINED	GASOLINE	NOT REPORTED	PRELIMINARY SITE ASSESSMENT UNDERWAY

ERIIS ENVIRONM AL DATA REPORT
CALIFORNIA SOLID W INFORMATION SYSTEM
SWIS - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID SWIS ID	FACILITY	ADDRESS	CATEGORY	PERMIT DATE/ CLOSURE YEAR
060420000488 19-AQ-0001	WESTERN WASTE INDUSTRIES TRANSFER STATIO	18803 SOUTH MAIN STREET CARSON LOS ANGELES COUNTY	TRANSFER	03/17/88 UNKN
06042000354 19-AA-0842	ELSMERE CANYON LANDFILL	SANTA CLARITA 1 MI E OF ANTELOP VAL FWY TORRANCE LOS ANGELES COUNTY	LANDFILL	UNKN
060420000B2 19-AA-0022	NOT APPLICABLE	16158 CENTRAL STREET LOS ANGELES COUNTY	LANDFILL	05/25/79 1980

ERIIS ENVIRONM AL DATA REPORT
CALIFORNIA UNDE,)UND STORAGE TANKS
UST - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID	FACILITY	BUSINESS DESCRIPTION	ADDRESS	MANAGER TELEPHONE
06010041687	PACIFIC TELEPHONE/TELEGRAPH CO	GAS STATION	19310 PACIFIC GY LOS ANGELES, CA 90502 COUNTY: LOS ANGELES	SUPERVISOR (213) 000-0000

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

06010040215	ONE STOP AUTO	AUTO REPAIR	1209 W 190TH ST TORRANCE, CA 90502-1004 COUNTY: LOS ANGELES	UNKNOWN (213) 513-0233

OWNER TANK ID	CAPACITY	SUBSTANCE	STATUS	TANK DESCRIPTION	TANK MATERIAL
	0	NOT REPORTED	NOT REPORTED	NOT REPORTED	NOT REPORTED

ERIIS ENVIRONM AL DATA REPORT
CALIFORN ORTESE LIST
CORTS - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID	REGULATED BY	FACILITY	ADDRESS	COUNTY
08025004472	CALSI	LAWSON ENTERPRISES, INC	19500 S NORMANDIE TORRANCE, CA 90502	LOS ANGELES
08025005995	LTANK	MOBIL OIL CORP. 11-MAF	21700 VERMONT TORRANCE, CA 90502	LOS ANGELES

ERIIS ENVIRONM' 'AL DATA REPORT
CALIFORNIA HAZARDOU .STE INFORMATION SYSTEM
HWIS - UNPLO TABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID EPA ID	FACILITY TYPE OF FACILITY	ADDRESS	COUNTY
06055013346 CAD980881643	PACIFIC BELL GENERATOR	19310 PACIFIC GATEWAY DR # 11 TORRANCE, CA 90502-1031	LOS ANGELES

ERIIS ENVIRON' 'AL DATA REPORT
CALIFORNIA SOLID \ 'E ASSESSMENT TEST
SWAT - UNPLOTTABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000837 / 4 190006NUR	GARDENA VALLEY NO 1 & 2	101 WEST TORRANCE BOULVARD CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	WORKPLAN APPROVED	NONE	RETURNED FOR REV.	AWAITING ADDITIONAL DATA FROM DHS RI/FS. DHS POST INTERIM REPORT IREC 8/13/90 MONITORING DELAYED DUE TO ACCESS PROBLEM. STAFF INEED TO CONTACT LAND OWNER.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000853 / 4 190011NUR	BERADA CORPORATION-GARDENA VALLEY NO. 5	100 WEST TORRANCE BOULVARD CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	RPT PREP W/O WKPL	NONE	LATE	PENDING SWAT PROPOSAL APPROVAL.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000857 / 4 190016NUR	ADAMS INDUSTRIES (CARSON-MARTIN ADAMS DUMP)	213ST & DOLORS STREET CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	LATE	UP TO 07/26/89 NO RESPONSE FROM DISCHARGER HAD BEEN RECEIVED. IENFORCEMENT LETTER SENT 6/21/89.	LATE	SEE ABOVE.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000860 / 4 190010NUR	BERADA CORPORATION-GARDENA VALLEY NO 4	801 TORRANCE CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	RPT PREP W/O WKPL	NONE	LATE	SUBMITTAL PENDING SWAT PROPOSAL APPROVAL.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000861 / 4 190012NUR	BERADA CORPORATION-GARDENA VALLEY NO. 6	213TH STREET CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	WORKPLAN APPROVED	NONE	REPORT APPROVED		NO ACTION CURRENTLY PROPOSED. BECAUSE	TOLUENE WAS DETECTED IN DOWNGRADIENT WELL	THERE ARE INDICATIONS THAT LEACHATE AND/OR	NONE

ERIIS ENVIRONM TAL DATA REPORT
CALIFORNIA SOLID \ E ASSESSMENT TEST
SWAT - UNPLU TABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000862 / 4 190020NUR	BKK CORPORATION-CARSON	19200 SOUTH MAIN CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
					OF THE COMPLEX HYDROLOGIC CONDITIONS, THERE IS INSUFFICIENT DATA TO DETERMINE THAT THE LANDFILL IS NOT A SOURCE OF POLLUTION.	MW-1 AT A CONCENTRATION OF 5UG/L. 1,4 DICHLOROBENZENE WAS DETECTED IN DOWNGRADIENT WELL MW-2 AT A CONCENTRATION OF 3 UG/L. BENZENE WAS DETECTED DURING THREE OF THE FOUR SAMPLING EVENTS IN UPGRADIENT WELL 730-1 AT CONCENTRATIONS OF 4UG/L TO 14 UG/L, WHICH EXCEEDS THE DEPARTMENT OF HEALTH SERVICES MCL OF 1 UG/L. ARSENIC WAS DETECTED IN MW-2 AT A CONCENTRATION OF .076 UG/L CADMIUM WAS DETECTED IN 727-1 AT A CONCENTRATION OF .013 UG/L. MANGANESE WAS DETECTED IN ALL FOUR WELLS RANGING FROM .01 MG/L TO 18.1 MG/L.	GAS MIGRATION MAY BE AFFECTING GROUND WATER QUALITY IN THE VICINITY OF THE LANDFILL, BUT NOT TO ANY GREAT EXTENT. AQUIFERS IN THIS BASIN ARE AN IMPORTANT SOURCE OF DRINKING WATER AND THE BASIN PLAN DESIGNATES MUNICIPAL SUPPLY (MUN) AS A BENEFICIAL USE OF THESE GROUND WATERS WHILE SEMI-PERCHED AQUIFERS IN WHICH WATER QUALITY MAY HAVE DETERIORATED ARE NOT PRESENTLY DRINKING WATER SOURCES, AS IS THE CASE AT THIS SITE, THE ENTIRE BASIN IS DESIGNATED MUN.	

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000874 / 4 190031NUR	CHURCH DUMP-WILMINGTON	SANDLESON ST/BLINN AVE CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	RPT PREP W/O WKPL	ADDITIONAL INFORMATION SUBMITTED 5/11/89 FOR SWAT PROPOSAL.	LATE	SUMITTAL PENDING SWAT PROPOSAL APPROVAL.	NONE	NONE	NONE	NONE
01	WORKPLAN APPROVED	NONE	LATE	ENFORCEMENT LETTER SENT 7/14/89.	NONE	NONE	NONE	NONE

ERIIS ENVIRONM' 'AL DATA REPORT
CALIFORNIA SOLID ' 'E ASSESSMENT TEST
SWAT - UNPLO TABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000908 / 4 190096NUR	MOR-GLOW PAINT COMPANY	18937 SOUTH MAIN CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	LATE	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000996 / 4 190142NUR	ALAMEDA STREET-VERNON	2900 SOUTH ALAMEDA CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001001 / 4 190147NUR	BLOCKER	21600 SOUTH BONITA STREET CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001035 / 4 190130NUR	SUPERIOR OIL COMPANY-CARSON	24900 SOUTH VERMONT CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001106 / 4 190235NUR	LOS ANGELES COUNTY ROAD DEPARTMENT-CARSON	GREENBRAE BLVD & CENTRAL CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001158 / 4 190276NUR	BROWN DUMP	19001 SOUTH FIGUEROA STREET CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001181 / 4 190308NUR	KATZ DUMP-CARSON	BROADWAY & VICTORIA CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001182 / 4 190290NUR	KOERNER	408 WEST GRIFFITH STREET CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

ERIIS ENVIRONM' 'TAL DATA REPORT
CALIFORNIA SOLID 'E ASSESSMENT TEST
SWAT - UNPLO TABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001187 / 4 190301NUR	HALLERMAN, MARTIN	FIGUEROA & SAN DIEGO FWY CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

06024001205 / 4 190320NUR	SEPULVEDA & VERMONT-CARSON	SEPULVEDA & VERMONT AVE CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

06024001292 / 4 190420NUR	HARGROVE	NE OF SEPULVEDA & ALAMEDA CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001314 / 4 190397NUR	SHELL CHEMICAL COMPANY-CARSON NO. 1	19204 SOUTH FIGUEROA CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001322 / 4 190429NUR	VERMONT & KNOX-CARSON	VERMONT AVE & KNOX ST CARSON, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024000975 / 4 190140NUR	RUSSEL, G.M.	131ST ST & FIGUEROA GARDENA, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001047 / 4 190196NUR	GARDENA-174TH & WESTERN	174TH & WESTERN GARDENA, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001321 / 4 190427NUR	VERMONT & 183RD STREET-GARDENA	WEST OF VERMONT AT 183RD ST GARDENA, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ENVIRONI 'AL DATA REPORT
CALIFORNIA SOLID \ ;E ASSESSMENT TEST
SWAT - UNPLOTTABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024000941 / 4 190074NUR	GREEN HOG RANCH-TORRANCE	2000 EAST BERYL STREET TORRANCE, CA FRESNO COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NEVER NOTIFIED.	NONE	NONE	NONE	NONE

06024001096 / 4 190240NUR	HIGGINS BRICK & TILE COMPANY-WEST ARESIA	S OF ARTESIA BTW CASMIR & VANN TORRANCE, CA FRESNO COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001131 / 4 190089NUR	LOS ANGELES COUNTY PARKS AND RECLAMATION-TORRANCE	3136 NORTH MANHANTON BEACH BLV TORRANCE, CA FRESNO COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001236 / 4 190334NUR	STANDARD OIL COMPANY-TORRANCE	SE OF SEPULVEDA & HAWTHORNE BL TORRANCE, CA FRESNO COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

06024001239 / 4 190351NUR	COLUMBIA STEEL-TORRANCE	CARVERS AVE & VANNESS TORRANCE, CA FRESNO COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

06024001860 / 7 370001NUR	JACUMBA SWDS	CA LOS ANGELES COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001861 / 7 370002NUR	SAN DIEGO COUNTY-OCCOTILLO WELLS	N HWY 78 CA LOS ANGELES COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

06024001889 / 9 370003NUR	FUEL FARM SITE	SITE #9 OLF IMP/# 1 NAS MIR CA LOS ANGELES COUNTY	

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	POSSIBLY NOT SWAT	SEE PROPOSAL	NO JURISDICTION	DETERMINED NOT	NONE	NONE	NONE	NONE

ERIIS ENVIRONM AL DATA REPORT
CALIFORNIA SOLID E ASSESSMENT TEST
SWAT - UNPLOTTABLE SITES

ERIIS Report #20100A

Dec 22, 1994

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001890 / 9 370004NUR	GOLF COURSE CHEMICAL RINSE AREA	SITE # 3 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
		REMARKS FOR BUILDING 39 RUNOFF CATCHMENT ABOVE.		SUBJECT TO SWAT PROGRAM ON 2/28/88.				
01	POSSIBLY NOT SWAT	SEE PROPOSAL REMARKS FOR BUILDING 39 RUNOFF CATCHMENT ABOVE. 4/11/91 LC: RESOURCE CONSERVATION AND RECOVERY ACT FACILITY IINVESTIGATION WORK PLAN RECEIVED 12/24/90. SITE INSPECTION WORK IPLAN RECEIVED 12/24/90. REVIEWED BOTH 4/1/91.	NO JURISDICTION	DETERMINED NOT SUBJECT TO SWAT PROGRAM ON 2/28/88.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001891 / 9 370005NUR	GOLF COURSE GARBAGE DISPOSAL AREA	SITE # 5 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	RPT PREP W/O WKPL	RB LETTER DATED 6/29/88 REQUESTED A TIME SCHEDULE TO COMPLETE ISWAT INVESTIGATION AND SUBMIT REPORT. NO RESPONSE RECEIVED. IDURING A MEETING IN 6/88 OPERATOR INDICATED THAT PROPOSAL WOULD IBE COMPLETE BY 7/14/88. SWAT REPORT SUBMITTED BEFORE REVIEW OF IPROPOSAL WAS COMPLETED. FOR ADDITIONAL INFORMATION SEE PROPOSAL IREMARKS FOR BUILDING 39 RUNOFF CATCHMENT. 4/11/91 LC DRAFT	REPORT APPROVED	SWAT REPORT INDICATES THAT CONCENTRATIONS OF VOLATILE HALOCARBONS IAND AROMATIC COMPOUNDS IN GROUND WATER SAMPLES AT THE LANDFILL, IWHICH EXCEED DOHS ACTION LEVELS.	VERIFICATION MONITORING TO DETERMINE EXTENT OF CONTAMINATION IPLUME.	UNDETERMINED	VOLATILE HALOCARBONS AND AROMATIC COMPOUNDS DETECTED IN GROUND IWATER.	CONDITIONAL SWAT APPROVAL; CONTINUED MONITORING IS UNDER SWAT IPROGRAM

ERIIS ENVIRONI AL DATA REPORT
CALIFORNIA SOLID \ E ASSESSMENT TEST
SWAT - UNPLOTTABLE SITES

ERIIS Report #20100A — Dec 22, 1994

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001895 / 9 370009NUR	PROPERTY DISPOSAL AREA	SITE # 10 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
		SITE ASSESSMENT PLAN AND REMEDIAL IINVESTIGATION/FEASIBILITY STUDY WORK PLAN RECEIVED 12/24/90 IMADE COMMENTS 4/1/91.						
01	POSSIBLY NOT SWAT	SEE PROPOSAL REMARKS FOR BUILDING 39 RUNOFF CATCHMENT ABOVE. 4/11/91 LC: A DRAFT SITE ASSESSMENT PLAN WAS RECEIVED 12/24/90. IREMIDIAL INVESTIGATION/FEASIBILITY STUDY WORK PLAN WAS RECEIVED I12/24/90. MADE COMMENTS ON BOTH 4/1/91.	NO JURISDICTION	DETERMINED NOT SUBJECT TO SWAT PROGRAM ON 2/28/88.	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001926 / 9 370036NUR	RUBBLE DUMPS	SITE # 10 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	UNDER REVIEW	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001935 / 9 370046NUR	FCTC RUBBLE DISPOSAL AREA	SITE # 1 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001979 / 9 370094NUR	BUILDING 352 UNDERGROUND TANK	SITE # 5 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE

ERIIS ID / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001989 / 9 370100NUR	DPDO SCRAP YARD	SITE # 6 IAS CA LOS ANGELES COUNTY		

ERIIS ENVIRONM TAL DATA REPORT
CALIFORNIA SOLID \ E ASSESSMENT TEST
SWAT - UNPLO TABLE SITES

ERIIS Report #20100A Dec 22, 1994

ERIIS ID. / WDS ID.	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024001990 / 9 370101NUR	MESSHALL GREASE DISPOSAL PITS	SITE # 2 IAS CA LOS ANGELES COUNTY		
06024001992 / 9 370110NUR	PEST CONTROL WASHRACK DRAINAGE DITCH	SITE # 3 IAS CA LOS ANGELES COUNTY		
06024001997 / 9 370108NUR	FIRE FIGHTING DRILL FIELD	SITE # 5 IAS CA LOS ANGELES COUNTY		
06024001998 / 9 370109NUR	MCAF DRAINAGE DITCH	SITE # 4 IAS CA LOS ANGELES COUNTY		
06024001999 / 9 370111NUR	REFUSE BURNING AREA	SITE # 1 IAS CA LOS ANGELES COUNTY		
06024002009 / 9 370120NUR	BUILDING 603 DISPOSAL PIT	SITE # 1 IAS CA LOS ANGELES COUNTY		
06024002010 / 9 370121NUR	BURIED GASOLINE SUPPLY PIPE LEAK	SITE # 12 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	NOT DUE YET	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE
01	NOT DUE YET	4/11/91 LC: RECEIVED THE SITE INSPECTION WORK PLAN ON 12/24/90. RECEIVED THE RESOURCE	LATE	NONE	NONE	NONE	NONE	NONE

PACCAR 00649

ERIIS ENVIRONM" "AL DATA REPORT
CALIFORNIA SOLID \ E ASSESSMENT TEST
SWAT - UNPL. TABLE SITES

ERIIS Report #20100A Dec 22, 1994

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024002011 / 9 370122NUR	FUEL FARM OPERATION AREAS	SITE # 1 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
		CONSERVATION AND RECOVERY ACT FACILITY IINVESTIGATION WORK PLAN ON 12/24/90 ALSO. REVIEWED BOTH ON I4/1/91.						
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024002013 / 9 370124NUR	NEW PAINT SHOP SITE	SITE # 3 IAS CA LOS ANGELES COUNTY		

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

ERIIS ID. / WDS ID	FACILITY	FACILITY ADDRESS	FACILITY CONTACT / FACILITY PHONE	FACILITY TYPE
06024002044 / 9 000061N91	SOUTH BAY DISPOSAL SITE	CA LOS ANGELES COUNTY	MR. ERIC SWANSON 619/694-3961	SW3

UNIT	WORKPLAN STATUS	WORKPLAN REMARKS	REPORT STATUS	REPORT REMARKS	LEAKAGE REMARKS	EXTENT REMARKS	EFFECTS REMARKS	ADDITIONAL REMARKS
01	NOT DUE YET	NONE	LATE	NONE	NONE	NONE	NONE	NONE

FINDS DESCRIPTION

AIRS (Aerometric Information Retrieval System) - The AIRS system contains detailed information pertaining to over 85,000 sites which submit air emissions reports. Developed under the Clean Air Act, this database also maintains data on compliance status and enforcement actions.

CERCLIS (Comprehensive Environmental Cleanup Liability Information System) - This system contains information on over 38,000 sites that have been identified as hazardous, or potentially hazardous, and may require cleanup. Information included in this database is provided by both state and federal sources.

CICIS (Chemicals in Commerce Information System) - The CICIS database is responsible for the tracking of hazardous chemicals that are listed in the Toxic Substances Control Act (TSCA). Data elements include the manufacturer's name and address, CAS registry number, chemical prefaced name, and any possible synonyms.

CONTR LIST (Contractor List) - The CONTR LIST is an inventory of companies that are barred from conducting business with the EPA due to violations of environmental laws or statutes.

CRIMDOCK (Criminal Docket System) - The CRIMDOCK is a comprehensive automated system for tracking criminal enforcement actions. CRIMDOCK handles data for all environmental statutes and tracks enforcement actions from the initial stages of investigation through conclusion.

CUS (Chemical Update System) - CUS is used to track facilities which manufacture or import specific toxic chemicals in excess of 10,000 pounds per year.

DOCKET - A national system containing all pertinent information regarding a civil or administrative enforcement action taken by the EPA, or state agency, against violators of environmental laws or statutes.

FATES (FIFRA and TSCA Enforcement System) - The FATES database contains records of FIFRA and TSCA inspections and enforcement proceedings, registration data for pesticide producing establishments and annual pesticide production reports, state grant-in-aid program and accomplishment data, and program and financial status of TSCA inspection contracts.

FTTS (FIFRA and TSCA Tracking System) - The FTTS system contains information regarding Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA) legislation. This database also contains selected data concerning pesticide producers.

FFIS (Federal Facility Information System) - FFIS is an index of selected federally owned facilities. It is a monitoring and tracking tool for the Office of Federal Facilities Enforcement. Its main purpose is to monitor pollution abatement programs for federal facilities worldwide.

NCDB (National Compliance Database) - The NCDB was used to support the implementation of the Federal Insecticide, Fungicide and, Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system is also used to track the inspections of approximately 17,000 chemical facilities.

PADS (PCB Activity Database System) - The PADS database contains information on sites where there is known contamination of polychlorinated biphenols.

PCS (Permit Compliance System) - PCS contains information pertaining to over 76,000 facilities that are permitted to discharge waste into bodies of surface water. Also, this system stores selective summaries of information for facilities with National Pollution Discharge Elimination System (NPDES) permits.

RCRA-J (Resource Conservation Recovery Act - Medical Waste) - This database is used to track medical waste under the stipulations of the Medical Waste Tracking Act (MWTA) of 1988. Data for this system is obtained from regulated communities through incinerator reports.

RCRIS (Resource Conservation Recovery Act Information System) - This report identifies and tracks hazardous waste from the point of generation to the point of disposal. Sites listed in the RCRIS database are those which comply with the regulations stipulated in the Resource Conservation Recovery Act.

STATE (State Regulated Facilities) - The STATE system is responsible for maintaining records for those facilities that are not required to register with any type of federal agency. The information on this database is quite varied due to the differing state environmental laws and statutes.

TRI (Toxic Release Inventory) - All facilities which manufacture, process, or import toxic chemicals in quantities in excess of 25,000 pounds per year are required to register with the EPA under Section 313 of the Superfund Amendments and Reauthorization Act (SARA Title III) of 1986. Data contained in the TRI system covers approximately 20,000 sites and 75,000 chemical releases.

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

D001 -- A solid waste that exhibits the characteristic of ignitability, but is not listed as a hazardous waste in Subpart D.

D002 -- A solid waste that exhibits the characteristic of corrosivity, but is not listed as a hazardous waste in Subpart D.

D003 -- A solid waste that exhibits the characteristic of reactivity, but is not listed as a hazardous waste in Subpart D.

EPA HW #	CAS #	COMMON CHEMICAL NAME
D004	7740-38-2	ARSENIC
D005	7740-39-3	BARIUM
D006	7440-43-9	CADMIUM
D007	7440-47-3	CHROMIUM
D008	7439-92-1	LEAD
D009	7439-97-6	MERCURY
D010	7782-49-2	SELENIUM
D011	7440-22-4	SILVER
D012	72-20-8	ENDRIN
D013	58-89-9	LINDANE
D014	72-43-5	METHOXYCHLOR
D015	8001-35-2	TOXAPHENE
D016	94-75-7	2,4-D
D017	93-72-1	2,4,5-TP(SILVEX)
D018	71-39-2	BENZENE
D019	56-23-5	CARBON TETRACHLORIDE
D020	57-74-9	CHLORDANE
D021	108-90-7	CHLOROBENZENE
D022	67-66-3	CHLOROFORM
D023	95-48-7	O-CRESOL
D024	108-39-4	M-CRESOL
D025	106-44-5	P-CRESOL
D026		CRESOL
D027	106-46-7	1,4-DICHLOROBENZENE
D028	107-06-2	1,2-DICHLOROETHANE
D029	75-35-4	1,1-DICHLOROETHYLENE
D030	121-14-2	2,4-DINITROTOLUENE
D031	76-44-8	HEPTACHLOR (AND ITS EPOXIDE)
D032	118-74-1	HEXACHLOROBENZENE
D033	87-68-3	HEXACHLOROBUTADIENE
D034	67-72-1	HEXACHLOROETHANE
D035	78-93-3	METHYL ETHYL KETONE
D036	98-95-3	NITROBENZENE
D037	87-86-5	PENTACHLOROPHENOL
D038	110-86-1	PYRIDINE
D039	127-18-4	TETRACHLOROETHYLENE
D040	79-01-6	TRICHLOROETHYLENE
D041	95-95-4	2,4,5-TRICHLOROPHENOL
D042	88-06-2	2,4,6-TRICHLOROPHENOL
D043	75-01-4	VINYL CHLORIDE

PACCAR 00653

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

F001 -- The following spent halogenated solvents used in degreasing: Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F002 -- The following spent halogenated solvents: Tetrachloroethylene, methylene chloride, trichloroethylene, 1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F003 -- The following spent non-halogenated solvents: Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol, all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of ten percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F004 -- The following spent non-halogenated solvents: Cresols and cresylic acid, and nitrobenzene: all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogentaed solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F005 -- The following spent non-halogenated solvents· Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004, and still bottoms from the recovery of these spent solvents and spent solvent mixtures.

F006 -- Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum, (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.

F007 -- Spent cyanide plating bath solutions from electroplating operations

F008 -- Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.

PACCAR 00654

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

F009 -- Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.

F010 -- Quenching bath residue from oil baths from metal heat treating operations where cyanides are used in the process.

F011 -- Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.

F012 -- Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.

F019 -- Wastewater treatment sludges from the chemical conversion coating of aluminum.

F020 -- Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of hexachlorophene from highly purified 2,4,5-trichlorophenol.)

F021 -- Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.

F022 -- Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.

F023 -- Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of hexachlorophene from highly purified 2,4,5- trichlorophenol.)

F024 -- Wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes from the production of chlorinated aliphatic hydrocarbons, having carbon content from one to five, utilizing free radical catalyzed processes. (This listing does not include light ends, spent filters and filter aids, spent dessicants, wastewater, wastewater treatment sludges, spend catalysts, and wastes listed in §261.32.)

F026 -- Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzene under alkaline conditions.

F027 -- Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.)

PACCAR 00655

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

F028 -- Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.

K001 -- Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.

K002 -- Wastewater treatment sludge from the production of chrome yellow and orange pigments.

K003 -- Wastewater treatment sludge from the production of molybdate orange pigments.

K004 -- Wastewater treatment sludge from the production of zinc yellow pigments.

K005 -- Wastewater treatment sludge from the production of chrome green pigments.

K006 -- Wastewater treatment sludge from the production of chrome oxide greenpigments (anhydrous and hydrated).

K007 -- Wastewater treatment sludge from the production of iron blue pigments.

K008 -- Oven residue from the production of chrome oxide green pigments.

K009 -- Distillation bottoms from the production of acetaldehyde from ethylene.

K010 -- Distillation side cuts from the production of acetaldehyde from ethylene.

K011 -- Bottom stream from the wastewater stripper in the production of acrylonitrile

K013 -- Bottom stream from the acetonitrile column in the production of acrylonitrile

K014 -- Bottoms from the acetonitrile purification column in the production of acrylonitrile

K015 -- Still bottoms from the distillation of benzyl chloride.

K016 -- Heavy ends or distillation residues from the production of carbon tetrachloride.

K017 -- Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin

K018 -- Heavy ends from the fractionation colummn in ethyl chloride production.

K019 -- Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.

K020 -- Heavy ends from the distillation of vinly chloride in vinly chloride monomer production

K021 -- Aqueous spend antimony catalyst waste from fluoromethane production

K022 -- Distillation bottom tars from the production of phenol/acetone from cumene.

K023 -- Distillation light ends from the production of phthalic anhydride from naphthalene

PACCAR 00656

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

K024 -- Distillation bottoms from the production of phthalic anhydride from naphthalene.

K025 -- Distillation bottoms from the production of nitrobenxene by the nitration of benzene.

K026 -- Stripping still tails from the production of methyl ethyl pyridines.

K027 -- Centrifuge and distillation residues from toluene diisocyanate production.

K028 -- Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane

K029 -- Wastes from the product steam stripper in the production of 1,1,1-trichloroethane.

K030 -- Column bottoms or heavy ends from the combined production of trichloroethtlene and perchloroethtlene.

K031 -- By-product salts generated in the production of MSMA and cacodylic acid.

K032 -- Wastewater treatment sludge from the production of chlordane.

K033 -- Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.

K034 -- Filter solids from the filtration of hexachlorocyclopentadiene in the prodution of chlordane.

K035 -- Wastewater treatment sludges generated in the production of creosote.

K036 -- Still bottoms from toluene reclamation distillation in the production of disulfoton

K037 -- Wastewater treatment sludges from the production of disulfoton,

K038 -- Wastewater from the washing and stripping of phorate production

K039 -- Filter cake from the filtration of diethylphosphorodithioic acid in the productionof phorate

K040 -- Wastewater treatment sludge from the production of phorate

K041 -- Wastewater treatment sludge from the production of toxaphene

K071 -- Brine purification muds from the mercury cell process in chlorine production, where separatelty prepurified brine is not used.

K073 -- Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production

K083 -- Distillation bottoms from aniline production

PACCAR 00657

EPA HAZARDOUS WASTE NUMBERS -- HAZARDOUS WASTE DESCRIPTION

K085 -- Distillation or fractionation column bottoms from the production of chlorobenzenes.

K093 -- Distillation light ends from the production of phthalic anhydride from ortho-xylene.

K095 -- Distillation bottoms from the production of 1,1,1-trichloroethane.

K096 -- Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.

K097 -- Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.

K098 -- Untreated process wastewater from the production of toxaphene.

K103 -- Process residues from aniline extraction from the production of aniline.

K104 -- Combined wastewater streams generated from nitrobenzene/aniline production,

K105 -- Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.

K106 - Wastewater treatment sludge from the mercury cell process in chlorine production.

K111 - Product washwaters from the production of dinitrotoluene via nitration of toluene.

K112 -- Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.

K113 -- Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

K114 -- Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

K115 -- Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.

K116 -- Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.

K117 -- Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.

K118 -- Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

K136 -- Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.

PACCAR 00658

EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
F027	88-06-2	2,4,6-TRICHLOROPHENOL
F027	58-90-2	2,3,4,6-TETRACHLOROPHENOL
F027	95-95-4	2,4,5-TRICHLOROPHENOL
F027	87-86-5	PENTACHLOROPHENOL
F027	93-76-5	2,4,5-TRICHLOROPHENOXYACETIC ACID
F027	93-72-1	SILVEX
P002	591-08-28	1-ACETYL-2-THIOUREA
P003	107-02-88	ACROLEIN
P001	81-81-2	WARFARIN
P004	309-00-28	ALDRIN
P005	107-18-68	ALLYL ALCOHOL
P006	20859-73-8	ALUMINUM PHOSPHIDE
P007	2763-96-4	MUSCIMOL
P008	504-24-58	PYRIDINE, 4-AMINO
P010	7778-39-4	ARSENIC ACID
P011	1303-28-2	ARSENIC PENTOXIDE, SOLID
P012	1327-53-3	ARSENIC TRIOXIDE, SOLID
P013	542-62-18	BARIUM CYANIDE, SOLID
P014	108-98-58	PHENYL MERCAPTAN
P015	7440-41-7	BERYLLIUM
P016	542-88-18	BIS(CHLOROMETHYL)ETHER
P017	598-31-28	BROMOACETONE
P018	357-57-38	BRUCINE
P020	88-85-7	DINOSEB
P021	592-01-88	CALCIUM CYANIDE, SOLID
P022	75-15-0	CARBON DISULFIDE
P023	107-20-08	CHLOROACETALDEHYDE
P024	106-47-88	P-CHLOROANILINE
P026	5344-82-1	1-(0-CHLOROPHENYL) THIOUREA
P027	542-76-78	3-CHLOROPROPIONITRILE
P028	100-44-78	BENZYL CHLORIDE
P029	544-92-38	CUPROUS CYANIDE
P030	57-12-5	CYANIDES (SOLUBLE SALTS AND COMPLEXES)
P031	460-19-58	CYANOGEN
P033	506-77-48	CYANOGEN CHLORIDE, INHIBITED
P034	131-89-58	4,6-DINITRO-0-CYCLOHEXYLPHENOL
P036	696-28-68	DICHLOROPHENYLARSINE
P037	60-57-1	DIELDRIN
P038	692-42-28	DIETHYLARSINE
P039	298-04-48	DISULFOTON
P040	297-97-28	THIONAZIN
P041	311-45-58	DIETHYL P-NITROPHENYL PHOSPHATE
P042	51-43-4	EPINEPHRINE
P043	55-91-4	ISOFLUROPHATE
P044	60-51-5	DIMETHOATE
P045	39196-18-4	THIOFANOX
P046	122-09-88	ALPHA, ALPHA-DIMETHYLPHENETHYLAMINE
P047	534-52-18	DINITRO-ORTHO-CRESOL

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EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
P048	51-28-5	2,4-DINITROPHENOL
P049	541-53-78	2,4-DITHIOBIURET
P050	115-29-78	ENDOSULFAN
P051	72-20-8	ENDRIN
P054	151-56-48	ETHYLENEIMINE
P056	7782-41-4	FLUORINE
P057	640-19-78	FLUORACETAMIDE
P058	62-74-8	SODIUM FLUOROACETATE
P059	76-44-8	HEPTACHLOR
P060	465-73-68	ISODRIN
P062	757-58-48	HEXAETHYL TETRAPHOSPHATE
P063	74-90-8	HYDROGEN CYANIDE, ANHYDROUS, STABILIZED
P064	624-83-98	METHYL ISOCYANATE
P065	628-86-48	MERCURY FULMINATE
P066	16752-77-5	METHOMYL
P067	75-55-8	PROPYLENE IMINE
P068	60-34-4	METHYL HYDRAZINE
P069	75-86-5	ACETONE CYANOHYDRIN
P071	298-00-08	METHYL PARATHION
P072	86-88-4	THIOUREA, 1-NAPHTHALENYL-(ANTU)
P073	13463-39-3	NICKEL CARBONYL
P074	557-19-78	NICKEL CYANIDE
P075	54-11-5	NICOTINE
P076	10102-43-9	NITRIC OXIDE
P077	100-01-68	P-NITROANILINE
P078	10102-44-0	NITROGEN DIOXIDE
P081	55-63-0	NITROGLYCERIN
P082	62-75-9	N-NITROSODIMETHYLAMINE
P084	4549-40-0	N-NITROSOMETHYLVINYLAMINE
P085	152-16-98	SCHRADAN
P087	20816-12-0	OSMIUM TETROXIDE
P088	145-73-38	ENDOTHAL
P089	56-38-2	PARATHION
P092	62-38-4	PHENYLMERCURIC ACETATE
P093	103-85-58	PHENYLTHIOUREA
P094	298-02-28	PHORATE
P095	75-44-5	PHOSGENE
P096	7803-51-2	PHOSPHINE
P097	52-85-7	FAMPHUR
P098	151-50-88	POTASSIUM CYANIDE
P099	506-61-68	POTASSIUM SILVER CYANIDE
P100	107-12-08	ETHYL CYANIDE
P101	107-12-08	PROPIONITRILE
P102	107-19-78	PROPARGYL ALCOHOL
P103	630-10-48	SELENOUREA
P104	506-64-98	SILVER CYANIDE
P105	26628-22-8	SODIUM AZIDE (NA(N3))

PACCAR 00660

EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
P106	143-33-98	SODIUM CYANIDE (NA(CN))
P108	57-24-9	STRYCHNINE
P109	3689-24-5	SULFOTEP
P110	78-00-2	TETRAETHYL LEAD
P111	107-49-38	TETRAETHYL PYROPHOSPHATE
P112	509-14-88	TETRANITROMETHANE
P113	1314-32-5	THALLIC OXIDE
P114	12039-52-0	SELENIOUS ACID, DITHALLIUM(1 +) SALT
P115	7446-18-6	THALLOUS SULFATE
P116	79-19-6	THIOSEMICARBAZIDE
P119	7803-55-6	AMMONIUM METAVANADATE
P120	1314-62-1	VANADIUM PENTOXIDE
P121	557-21-18	ZINC CYANIDE
P122	1314-84-7	ZINC PHOSPHIDE
P123	8001-35-2	TOXAPHENE
U001	75-07-0	ACETALDEHYDE
U002	67-64-1	ACETONE
U003	75-05-8	ACETONITRILE
U004	98-86-2	ACETOPHENONE
U005	53-96-3	2-ACETYLAMINOFLUORENE
U006	75-36-5	ACETYL CHLORIDE
U007	79-06-1	ACRYLAMIDE
U008	79-10-7	ACRYLIC ACID
U009	107-13-18	ACRYLONITRILE, INHIBITED
U010	50-07-7	MITOMYCIN C
U011	61-82-5	AMITROLE
U012	62-53-3	ANILINE
U014	492-80-88	C.I. SOLVENT YELLOW 34
U015	115-02-68	AZASERINE
U016	225-51-48	BENZ[C]ACRIDINE
U017	98-87-3	BENZAL CHLORIDE
U018	56-55-3	BENZ[A]ANTHRACENE
U019	71-43-2	BENZENE
U020	98-09-9	BENZENESULFONYL CHLORIDE
U021	92-87-5	BENZIDINE
U022	50-32-8	BENZO[A]PYRENE
U023	98-07-7	BENZOIC TRICHLORIDE
U024	111-91-18	BIS(2-CHLOROETHOXY)METHANE
U025	111-44-48	2,2'-DICHLOROETHYL ETHER
U026	494-03-18	CHLORNAPHAZINE
U027	108-60-18	BIS(2-CHLOROISOPROPYL)ETHER
U028	117-81-78	DI-(2-ETHYLHEXYL)PHTHALATE
U029	74-83-9	METHYL BROMIDE
U030	101-55-38	4-BROMOPHENYL PHENYL ETHER
U031	71-36-3	N-BUTYL ALCOHOL
U032	13765-19-0	CALCIUM CHROMATE
U033	353-50-48	CARBONIC DIFLUORIDE
U034	75-87-6	ACETALDEHYDE, TRICHLORO-

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EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
U035	305-03-38	CHLORAMBUCIL
U036	57-74-9	CHLORDANE
U037	108-90-78	CHLOROBENZENE
U038	510-15-68	CHLOROBENZILATE
U039	59-50-7	4-CHLORO-M-CRESOL
U041	106-89-88	EPICHLOROHYDRIN
U042	110-75-88	2-CHLOROETHYL VINYL ETHER
U043	75-01-4	VINYL CHLORIDE
U044	67-66-3	CHLOROFORM
U045	74-87-3	METHYL CHLORIDE
U046	107-30-28	CHLOROMETHYL METHYL ETHER
U047	91-58-7	BETA-CHLORONAPHTHALENE
U048	95-57-8	0-CHLOROPHENOL
U049	3165-93-3	4-CHLORO-O-TOLUIDINE HYDROCHLORIDE
U050	218-01-98	1,2-BENZPHENANTHRENE
U051	8021-39-4	WOOD CREOSOTE
U052	1319-77-3	CRESOL
U053	4170-30-3	CROTONALDEHYDE
U055	98-82-8	CUMENE
U056	110-82-78	CYCLOHEXANE
U057	108-94-18	CYCLOHEXANONE
U058	50-18-0	CYCLOPHOSPHAMIDE
U059	20830-81-3	DAUNOMYCIN
U060	72-54-8	1,1-DICHLORO-2,2-BIS (P-CHLOROPHENYL)ETHANE
U061	50-29-3	DICHLORODIPHENYLTRICHLOROETHANE
U062	2303-16-4	DIALLATE
U063	53-70-3	DIBENZ(A,H)ANTHRACENE
U064	189-55-98	DIBENZO(A,I)PYRENE
U066	96-12-8	1,2-DIBROMO-3-CHLOROPROPANE
U067	106-93-48	ETHYLENE DIBROMIDE
U068	74-95-3	METHYLENE BROMIDE
U069	84-74-2	DIBUTYL PHTHALATE
U070	95-50-1	0-DICHLOROBENZENE, LIQUID
U071	541-73-18	M-DICHLOROBENZENE
U072	106-46-78	P-DICHLOROBENZENE
U073	91-94-1	3,3'-DICHLOROBENZIDINE
U074	764-41-08	1,4-DICHLORO-2-BUTENE (I,T)
U075	75-71-8	DICHLORODIFLUOROMETHANE
U076	75-34-3	1,1-DICHLOROETHANE
U077	107-06-28	ETHYLENE DICHLORIDE
U078	75-35-4	VINYLIDENE CHLORIDE
U079	156-60-58	TRANS-1,2-DICHLOROETHYLENE
U080	75-09-2	DICHLOROMETHANE
U081	120-83-28	2,4-DICHLOROPHENOL
U082	87-65-0	2,6-DICHLOROPHENOL
U083	78-87-5	PROPYLENE DICHLORIDE
U084	542-75-68	1,3-DICHLOROPHENOL

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EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
U085	1464-53-5	2,2-BIOXIRANE
U086	1615-80-1	1,2-DIETHYLHYDRAZINE
U087	3288-58-2	0,0-DIETHYL S-METHYL DITHIOPHOSPHATE
U088	84-66-2	DIETHYL PHTHALATE
U089	56-53-1	DIETHYLSTILBESTROL
U090	94-58-6	DIHYDROSAFROLE
U091	119-90-48	3,3'-DIMETHOXYBENZIDINE
U092	124-40-38	DIMETHYLAMINE, ANHYDROUS
U093	60-11-7	4-DIMETHYLAMINOAZOBENZENE
U094	57-97-6	7,12-DIMETHYLBENZ(A)ANTHRACENE
U095	119-93-78	3,3'-DIMETHYLBENZIDINE
U096	80-15-9	CUMENE HYDROPEROXIDE
U097	79-44-7	DIMETHYLCARBAMOYL CHLORIDE
U099	540-73-88	1,2-DIMETHYLHYDRAZINE
U101	105-67-98	2,4-XYLENOL
U102	131-11-38	DIMETHYL PHTHALATE
U103	77-78-1	DIMETHYL SULFATE
U105	121-14-28	2,4-DINITROTOLUENE
U106	606-20-28	2,6-DINITROTOLUENE
U107	117-84-08	DIOCTYL PHTHALATE
U108	123-91-18	1,4-DIOXANE
U109	122-66-78	1,2-DIPHENYLHYDRAZINE
U110	142-84-78	DIPROPYLAMINE
U111	621-64-78	N-NITROSODI-N-PROPYLAMINE
U112	141-78-68	ETHYL ACETATE
U113	140-88-58	ETHYL ACRYLATE
U114	111-54-68	ETHYLENEBIS(DITHIOCARBAMIC ACID)
U115	75-21-8	ETHYLENE OXIDE
U116	96-45-7	ETHYLENE THIOUREA
U117	60-29-7	ETHYL ETHER
U118	97-63-2	ETHYL METHACRYLATE
U119	62-50-0	ETHYL METHANESULFONATE
U120	206-44-08	FLUORANTHENE
U121	75-69-4	FLUOROTRICHLOROMETHANE
U122	50-00-0	FORMALDEHYDE GAS
U123	64-18-6	FORMIC ACID
U124	110-00-98	FURAN
U125	98-01-1	FURFURAL
U126	765-34-48	GLYCIDALDEHYDE
U127	118-74-18	HEXACHLOROBENZENE
U128	87-68-3	HEXACHLOROBUTADIENE
U129	58-89-9	LINDANE
U130	77-47-4	HEXACHLOROCYCLOPENTADIENE
U131	67-72-1	HEXACHLOROETHANE
U132	70-30-4	HEXACHLOROPHENE
U133	302-01-28	HYDRAZINE, ANHYDROUS

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EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
U134	7664-39-3	HYDROGEN FLUORIDE SOLUTION
U134	7664-39-3	HYDROGEN FLUORIDE
U135	7783-06-4	HYDROGEN SULFIDE
U136	75-60-5	CACODYLIC ACID
U137	193-39-58	INDENO(1,2,3-CD)PYRENE
U138	74-88-4	METHYL IODIDE
U139	9004-66-4	IRON DEXTRAN COMPLEX
U140	78-83-1	ISOBUTYL ALCOHOL
U141	120-58-18	ISOSAFROLE
U142	143-50-08	CHLORDECONE
U143	303-34-48	LASIOCARPINE
U144	301-04-28	LEAD ACETATE
U145	7446-27-7	LEAD PHOSPHATE
U146	1335-32-6	LEAD SUBACETATE
U147	108-31-68	MALEIC ANHYDRIDE
U148	123-33-18	MALEIC HYDRAZIDE
U149	109-77-38	MALONONITRILE
U150	148-82-38	MELPHALAN
U151	7439-97-6	MERCURY
U152	126-98-78	METHACRYLONITRILE
U153	74-93-1	METHYL MERCAPTAN
U154	67-56-1	METHYL ALCOHOL
U155	91-80-5	METHAPYRILENE
U156	79-22-1	METHYL CHLOROFORMATE
U157	56-49-5	3-METHYLCHOLANTHRENE
U158	101-14-48	4,4'-METHYLENEBIS(2-CHLOROBENZENAMINE)
U159	78-93-3	METHYL ETHYL KETONE
U160	1338-23-4	2-BUTANONE PEROXIDE
U161	108-10-18	METHYL ISOBUTYL KETONE
U162	80-62-6	METHYL METHACRYLATE, INHIBITED
U163	70-25-7	N-METHYL-N'-NITRO-N-NITROSOGUANIDINE
U164	56-04-2	METHYLTHIOURACIL
U165	91-20-3	NAPHTHALENE
U166	130-15-48	1,4-NAPHTHOQUINONE
U167	134-32-78	ALPHA-NAPHTHYLAMINE
U168	91-59-8	BETA-NAPHTHYLAMINE
U169	98-95-3	NITROBENZENE, LIQUID
U170	100-02-78	P-NITROPHENOL
U171	79-46-9	2-NITROPROPANE
U172	924-16-38	N-NITROSODI-N-BUTYLAMINE
U173	1116-54-7	N-NITROSODIETHANOLAMINE
U174	55-18-5	ETHANAMINE,N-ETHYL-N-NITROSO-
U176	759-73-98	N-NITROSO-N-ETHYLUREA
U177	684-93-58	N-NITROSO-N-METHYLUREA
U178	615-53-28	N-NITRO-N-METHYLURETHANE
U179	100-75-48	N-NITROSOPIPERIDINE
U180	930-55-28	N-NITROSOPYRROLIDINE
U181	99-55-8	5-NITRO-O-TOLUIDINE

EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
U182	123-63-78	PARALDEHYDE
U183	608-93-58	PENTACHLOROBENZENE
U184	76-01-7	PENTACHLOROETHANE
U185	82-68-8	PENTACHLORONITROBENZENE
U186	504-60-98	1,3-PENTADIENE
U187	62-44-2	PHENACETIN
U188	108-95-28	PHENOL
U189	1314-80-3	PHOSPHOROUS PENTASULFIDE
U190	85-44-9	PHTHALIC ANHYDRIDE
U191	109-06-88	2-PICOLINE
U192	23950-58-5	PRONAMIDE
U193	1120-71-4	PROPANE SULTONE
U194	107-10-88	PROPYLAMINE
U196	110-86-18	PYRIDINE
U197	106-51-48	QUINONE
U200	50-55-5	RESERPINE
U201	108-46-38	RESORCINOL
U202	81-07-2	SACCHARIN
U203	94-59-7	SAFROLE
U204	7783-00-8	SELENIOUS ACID
U205	7488-56-4	SELENIUM DISULFIDE
U206	18883-66-4	STREPTOZOTOCIN
U207	95-94-3	1,2,4,5-TETRACHLOROBENZENE
U208	630-20-68	1,1,1,2-TETRACHLOROETHANE
U209	79-34-5	1,1,2,2-TETRACHLOROETHANE
U210	127-18-48	TETRACHLOROETHYLENE
U211	56-23-5	CARBON TETRACHLORIDE
U212	58-90-2	2,3,4,6-TETRACHLOROPHENOL
U213	109-99-98	TETRAHYDROFURAN
U214	563-68-88	THALLIUM ACETATE
U215	6533-73-9	THALLOUS CARBONATE
U216	7791-12-0	THALLIUM CHLORIDE
U217	10102-45-1	THALLIUM NITRATE
U218	62-55-5	THIOACETAMIDE
U219	62-56-6	THIOUREA
U220	108-88-38	TOLUENE
U221	25376-45-8	TOLUENEDIAMINE
U222	636-21-58	O-TOLUIDINE HYDROCHLORIDE
U223	26471-62-5	TOLUENE DIISOCYANATE (MIXED ISOMERS)
U225	75-25-2	BROMOFORM
U226	71-55-6	METHYL CHLOROFORM
U227	79-00-5	1,1,2-TRICHLOROETHANE
U228	79-01-6	TRICHLOROETHYLENE
U230	88-06-2	2,4,6-TRICHLOROPHENOL
U232	93-76-5	2,4,5-T ACID
U233	93-72-1	SILVEX (2,4,5-TP)
U234	99-35-4	1,3,5-TRINITROBENZENE

EPA HAZARDOUS WASTE NUMBERS -- COMMON CHEMICAL NAME

EPA HW #	CAS #	COMMON CHEMICAL NAME
U235	126-72-78	TRIS
U236	72-57-1	TRYPAN BLUE
U237	66-75-1	URACIL MUSTARD
U238	51-79-6	URETHANE
U239	95-47-6	O-XYLENE
U239	106-42-38	P-XYLENE
U239	108-38-38	M-XYLENE
U239	1330-20-7	XYLENE (MIXED ISOMERS)
U239	95-47-6	BENZENE, O-DIMETHYL-
U239	106-42-38	BENZENE, P-DIMETHYL-
U239	108-38-38	BENZENE, M-DIMETHYL-
U240	94-75-7	2,4-DICHLOROPHENOXYACETIC ACID
U242	87-86-5	PENTACHLOROPHENOL
U243	1888-71-7	HEXACHLOROPROPENE
U244	137-26-88	THIRAM
U246	506-68-38	CYANOGEN BROMIDE
U247	72-43-5	METHOXYCHLOR
U248	506-68-38	CYANOGEN BROMIDE
U249	1314-84-7	ZINC PHOSPHIDE (CONC. < = 10%)
U328	95-53-4	O-YOLUIDINE
U353	106-49-08	P-TOLUIDINE
U359	110-80-58	2-ETHOXYETHANOL

PACCAR 00666

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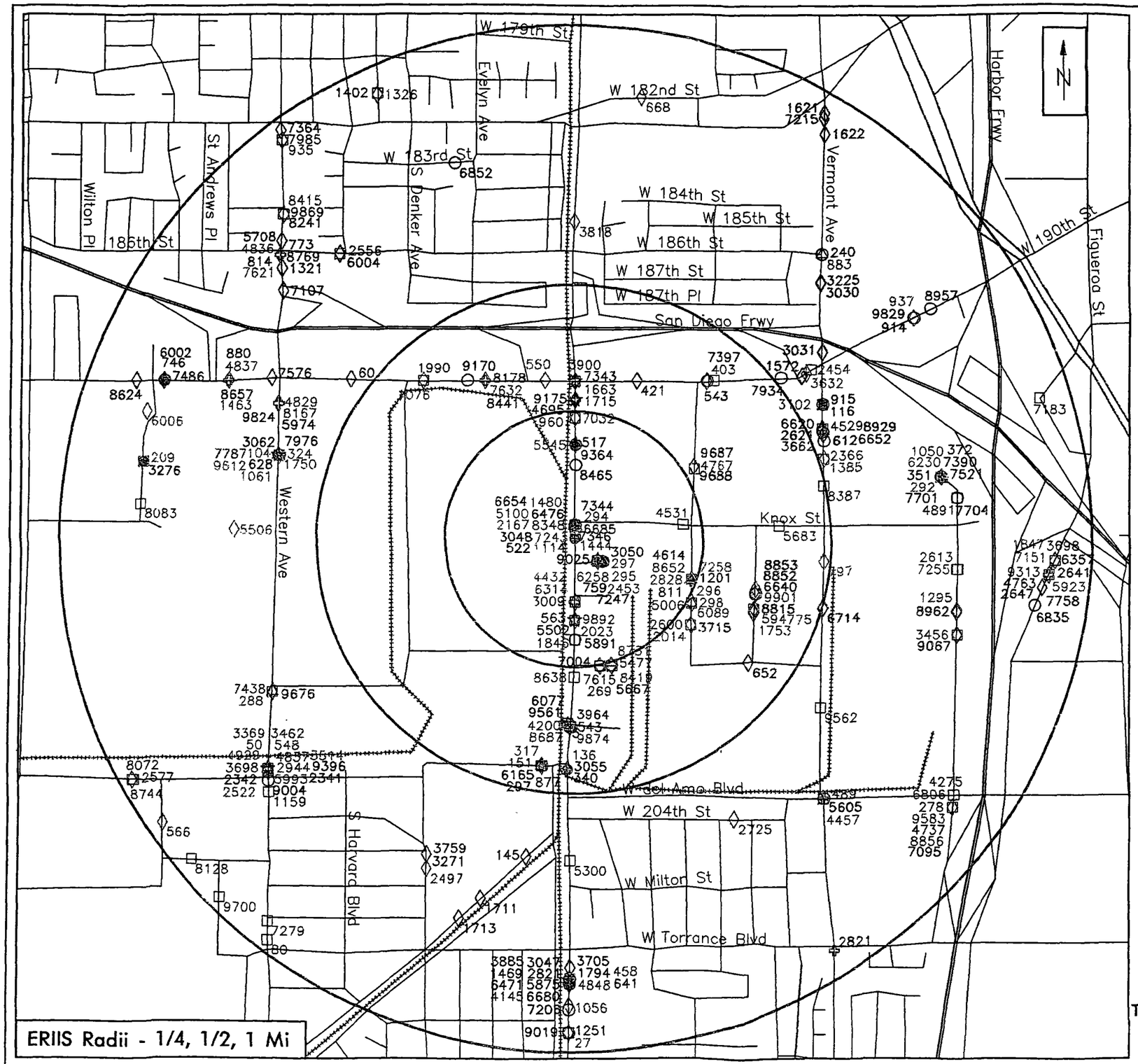
SANBORN FIRE INSURANCE MAP SEARCH

PERTAINING TO: TRICO INDUSTRIES
1206 196TH STREET
TORRANCE, CA 90502

REPORT NUMBER: 20100A

No Sanborn coverage is available for this site in the ERIIS Collection, for the period covering the years 1867-1990



ERIIS

1421 Prince Street, Suite 230
Alexandria, VA 22314
(703)836-0402 (800)989-0402
FAX: (703)836-0468

SITE INFORMATION

Trico Industries
1206 196th Street
Torrance, CA
Los Angeles County
Job Number: 20100A
Map Plotted: Dec 23, 1994

MAP LEGEND

- Hydrography
- Railroads
- Roads
- Highways
- NPL 1 Site(s)
- RCRIS_TS 2 Site(s)
- CERCLIS 16 Site(s)
- RCRIS_LG 34 Site(s)
- RCRIS_SG 30 Site(s)
- TRI 9 Site(s)
- FRDS 0 Site(s)
- ERNS 5 Site(s)
- CALSITES 35 Site(s)
- LUST 12 Site(s)
- SWIS 0 Site(s)
- UST 64 Site(s)
- SWAT 1 Site(s)
- HWIS 54 Site(s)
- CORTS 12 Site(s)
- OGW 0 Site(s)
- WDS 4 Site(s)

Miles

0 0.25 0.5

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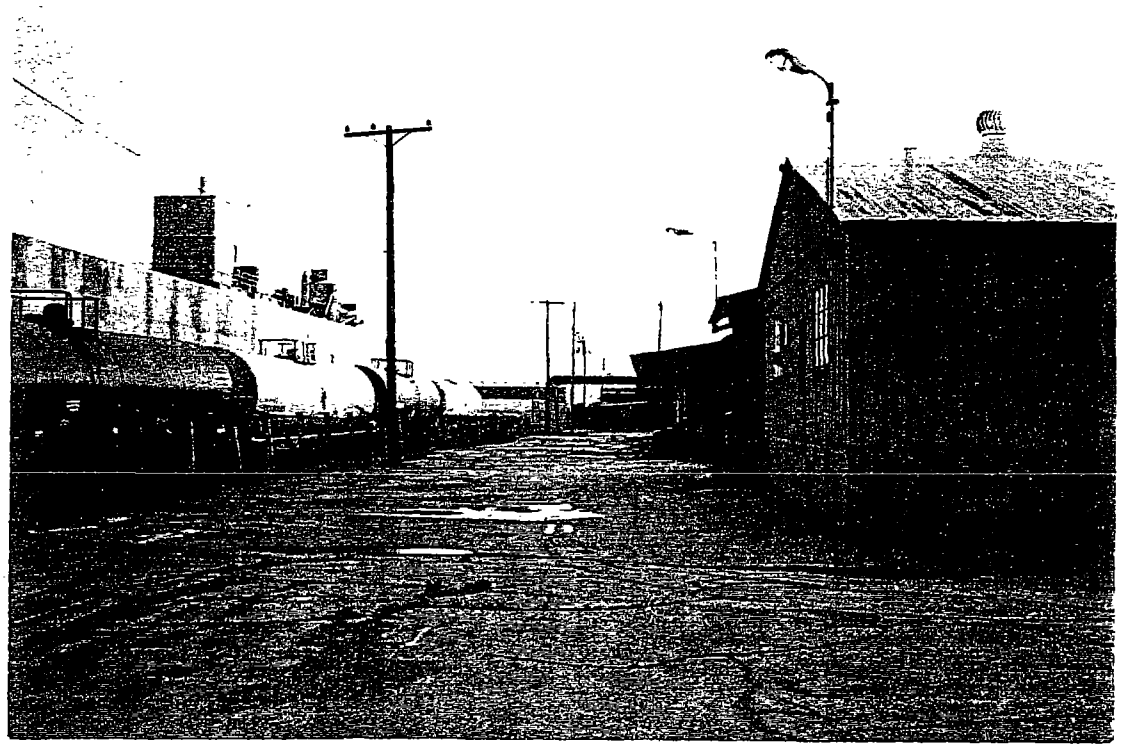
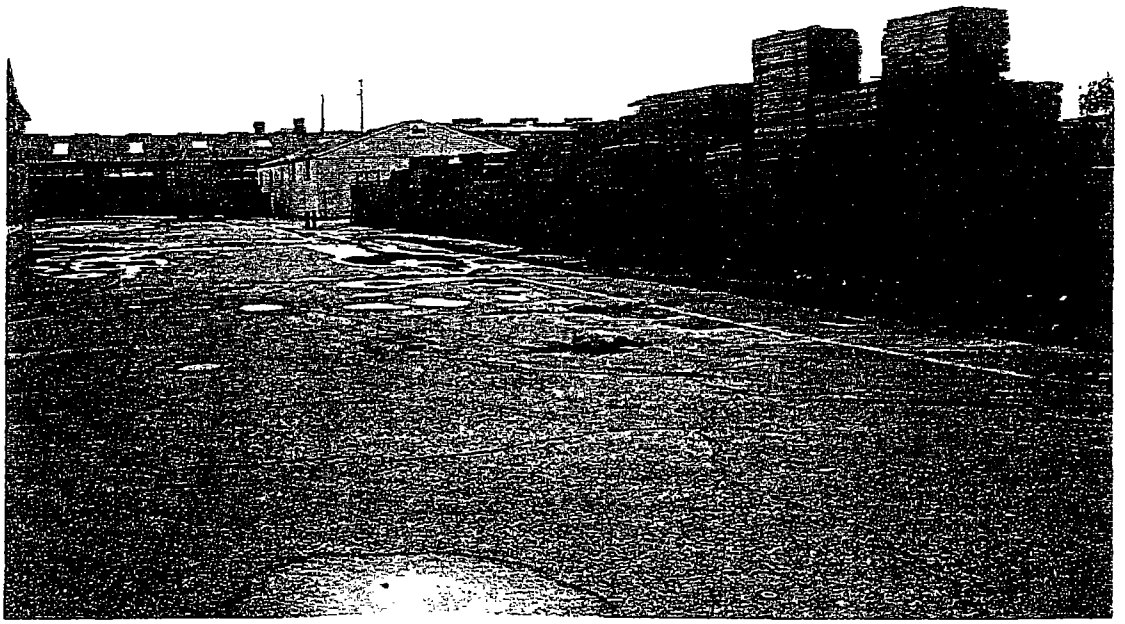
Appendix B

APPENDIX B
Site Photographs

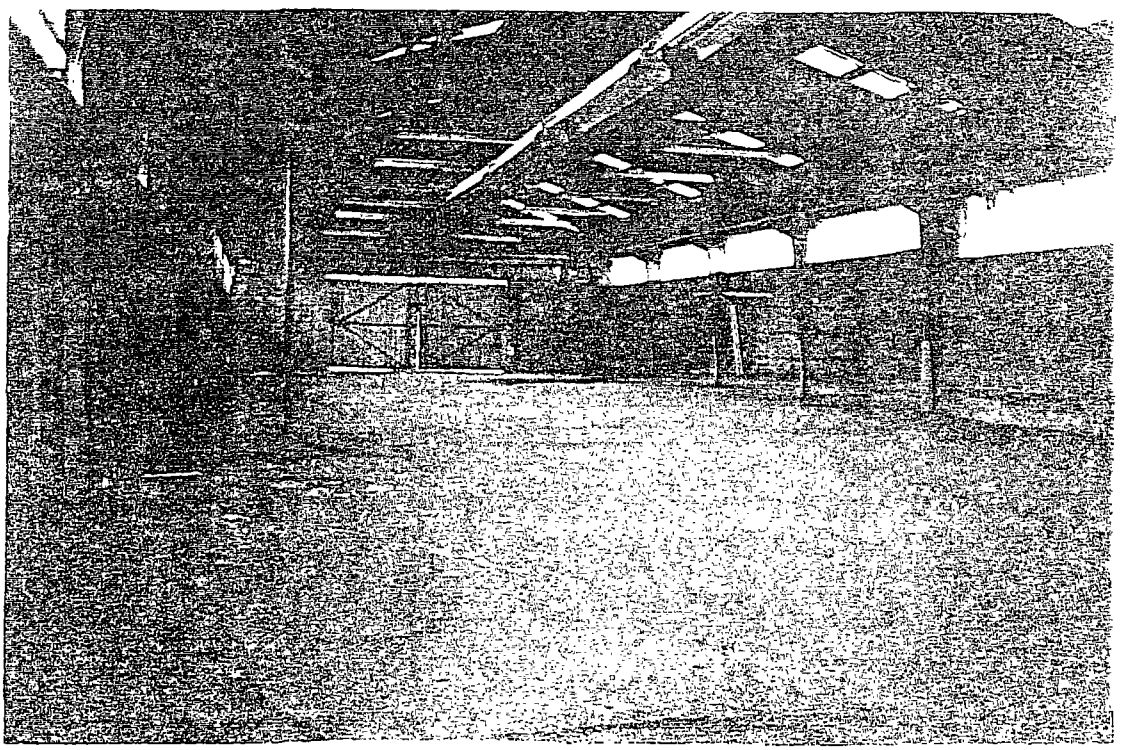


Photograph 1 - View south along eastern property boundary showing Building B on the right and railroad tracks on the left.

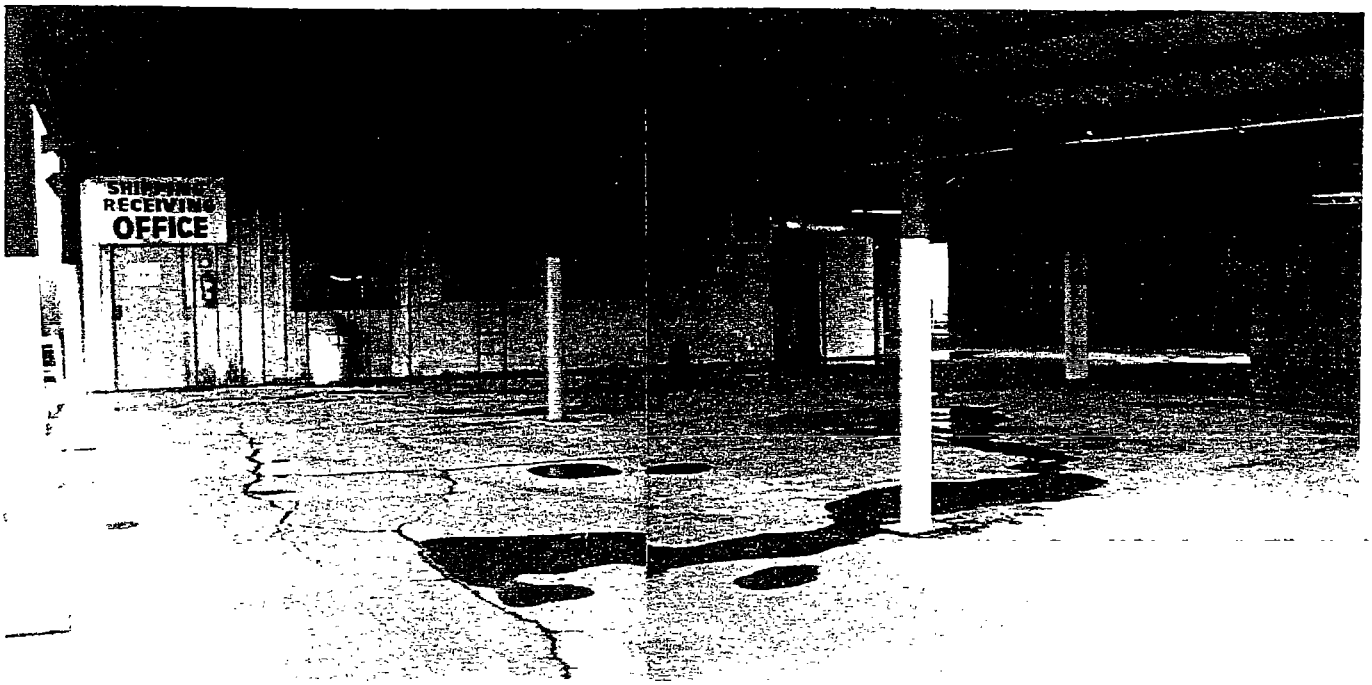


Photograph 2 - View south showing Buildings A and C. Lumber yard is on the right.

Photograph 3 - View east showing the northern side of Building A.



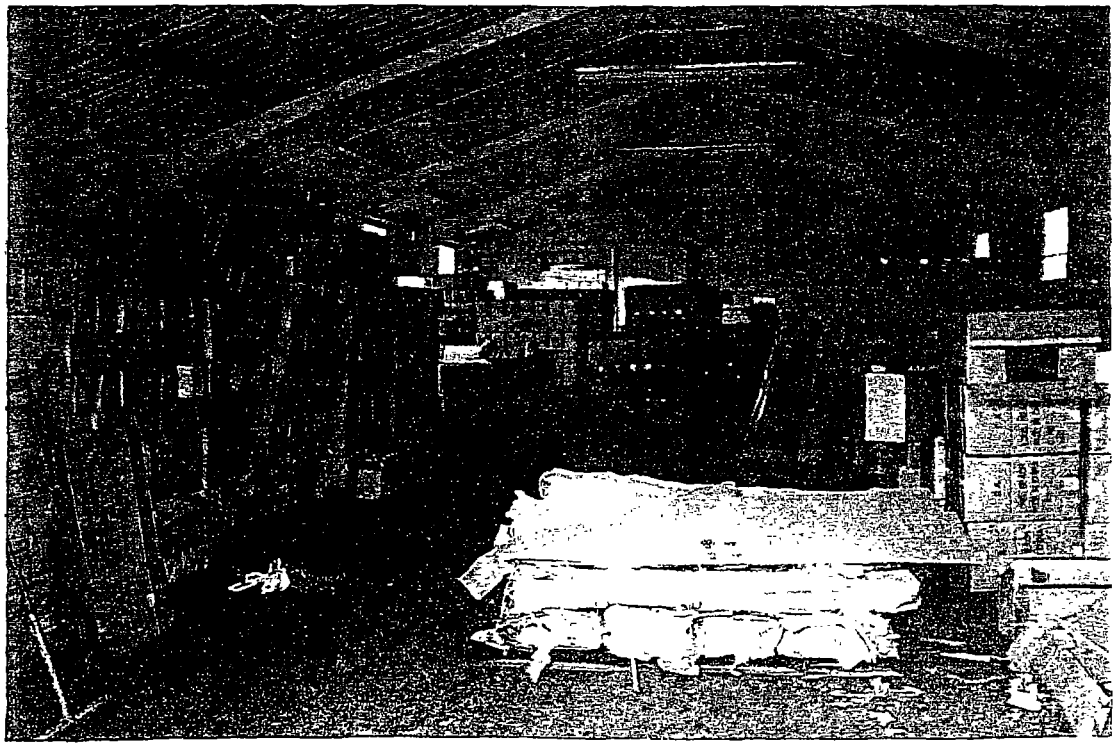
Photograph 4 - Inside Building A.



Photograph 5 - View of northern end of Building B.

Photograph 6 - View southwest of Buildings B and A. Photo shows eastern side of property.

Photograph 7 - Inside of Building B, showing stored patio furniture.



Photograph 8 - Inside of Building C, showing stored imported goods.

Appendix C

APPENDIX C
Laboratory Analytical Data Sheets

Forensic Analytical
Analytical Report

San Francisco • 3777 Depot Road, Suite 409, Hayward, CA 94545 • Phone 510 887 8233 • Fax 510 887 4278
Los Angeles • 19443 Laurel Park Road, Suite 101, Rancho Dominguez, CA 90220 • Phone 310 763 2374 • Fax 310/76

Bulk Asbestos Analysis Summary

40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client ID: 52
Report Number: 57
Date Received: 01/

P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Sample Number / Location/Description	Date Col.	Lab Num.	Asbestos Present	(Breakdown by typ
A1 Office building A - Floor tile.	01/30/95	59503958	1-5%	Chrysotile (1-5%)
A2 Office building A - Ceiling square.	01/30/95	59503959	Non-Det.%	
A3 Office building A - Ceiling panel.	01/30/95	59503960	Non-Det.%	
A4 Office building A - Floor tile.	01/30/95	59503961	1-5%	Chrysotile (1-5%)
B1 South office building B - Floor tile.	01/30/95	59503962	Non-Det.%	
B2 South office building B - Ceiling square.	01/30/95	59503963	Non-Det.%	
B3 North office building B - Floor tile.	01/30/95	59503964	1-5%	Chrysotile (1-5%)
B4 North office building B - Floor tile.	01/30/95	59503965	1-5%	Chrysotile (1-5%)
B5 North office building B - Sheetrock.	01/30/95	59503966	Non-Det.%	

Matilde Antillon

Matilde Antillon, Laboratory Supervisor, Rancho Dominguez Laboratory

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Forensic Analytical

[illegible] • Phone 510 887-8823 • Fax 510 887-4218
Los Angeles • [illegible] Laurel Park Road, Suite 101, Rancho Dominguez, CA 90220 • Phone 310/763-2074 • Fax 310 763-8684

Bulk Asbestos Analysis Summary

40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client ID: 5261
Report Number: 572068
Date Received: 01/30/[illegible]

P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Sample Number Location/Description	Date Col.	Lab Num.	Asbestos Present	(Breakdown by type)
B6 North office building B - Sheetrock.	01/30/95	59503967	Non-Det.%	

Matilde Antillon

Matilde Antillon, Laboratory Supervisor, Rancho Dominguez Laboratory

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Forensic Analytical
Analytical Services

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Los Angeles • 19443 Laurel Park Road, Suite 101, Rancho Dominguez, CA 90220 • Phone 310 763 0374 • Fax 3

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503958
Sample Number: A1
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/9

Location: Office building A - Floor tile.

Gross Description: Brown tile with tan mastic.

Comments: Asbestos in tile only (1-5%). Composite reported.

Microscopic Description

TOTAL ASBESTOS PRESENT:			1-5
Chrysotile	1-5	%	
Amosite	Non-Det.	%	
		%	
		%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:			1-5
Cellulose	1-5	%	
Fibrous Glass	Non-Det.	%	
		%	
		%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:			90-95

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Forensic Analytical

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503959
Sample Number: A2
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: Office building A - Ceiling square.

Gross Description: Tan fibrous tile with paint.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:		Non-Det.%
Chrysotile	Non-Det.%	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		85-90 %
Cellulose	85-90 %	
Fibrous Glass	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		10-15 %

[illegible]

Forensic Analytical
Analytical Report

San Francisco • 3777 Depot Road Suite 409 Hayward CA 94545 • Phone 510/887-8828 • Fax 510/887-4218
Los Angeles • 19443 Laurel Park Road Suite 101 Rancho Dominguez CA 90220 • Phone 310 763-2374 • Fax 310 763 8684

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503960
Sample Number: A3
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: Office building A - Ceiling panel.

Gross Description: Gray fibrous tile with paint.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:		Non-Det.%
Chrysotile	Non-Det.%	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		95-99 %
Cellulose	60-65 %	
Fibrous Glass	30-35 %	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		1-5 %

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Forensic Analytical
Analytical Report

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Los Angeles • 19443 Laurel Park Road, Suite 101, Rancho Dominguez, CA 90220 • Phone 310 763 2074 • Fax 310 763 8684

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503961
Sample Number: A4
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: Office building A - Floor tile.

Gross Description: Beige tile with tan mastic.

Comments: Asbestos in tile only (1-5%). Composite reported.

Microscopic Description

TOTAL ASBESTOS PRESENT:			1-5	%
Chrysotile	1-5	%		
Amosite	Non-Det.	%		
		%		
		%		
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:			1-5	%
Cellulose	1-5	%		
Fibrous Glass	Non-Det.	%		
		%		
		%		
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:			90-95	%

Analytical results and reports are generated by Forensic Analytical at the request of and/or [illegible] such report. Results, reports or copies of some will not be released by Forensic Analytical [illegible] This report applies only to the sample(s) tested. Supporting laboratory documentation [illegible] except in full with approval from Forensic Analytical. The client is solely responsible for [illegible] from Forensic Analytical. This report must not be used by the client to claim product endorsement by [illegible] Forensic Analytical is not able to assess the degree of hazard resulting from materials analyzed. [illegible] for a period of six months and are then disposed [illegible]

PACCAR 00682

Forensic Analytical
[illegible]
San Francisco [illegible] Phone [illegible] Fax [illegible]
Los Angeles [illegible] Laura Park Road, Suite [illegible] Rancho Dominguez, CA [illegible] Phone [illegible] Fax [illegible]

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503962
Sample Number: B1
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: South office building B - Floor tile.

Gross Description: White tile with tan mastic.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:		Non-Det.%
Chrysotile	Non-Det.%	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		1-5 %
Cellulose	1-5 %	
Fibrous Glass	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		95-99 %

[illegible]

PACCAR 00683

Forensic Analytical

[illegible] Depot Road [illegible]
Los Angeles [illegible] Laurel Park Road [illegible] Dominguez [illegible] 3684

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503963
Sample Number: B2
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: South office building B - Ceiling square.

Gross Description: Brown fibrous tile with paint.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:		Non-Det.%
Chrysotile	Non-Det.%	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		85-90 %
Cellulose	50-55 %	
Fibrous Glass	30-35 %	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		10-15 %

Analytical results and reports [illegible] such report. Results, reports [illegible] This report applies only to the sample [illegible] except in full with approval from [illegible] The client is solely responsible [illegible] from Forensic Analytical. [illegible] Forensic Analytical is not able to assess [illegible] for a period of six months [illegible]

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Analytical Report

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Los Angeles • 9443 Laurel Park Road, Suite [illegible], Rancho Dominguez, CA 90220 • Phone 310 763-2374 • Fax 310

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503964
Sample Number: B3
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: North office building B - Floor tile.

Gross Description: Brown tile with tan mastic.

Comments: Asbestos in tile only (1-5%). Composite reported.

Microscopic Description

TOTAL ASBESTOS PRESENT:		1-5 %
Chrysotile	1-5 %	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		Non-Det.%
Cellulose	Non-Det.%	
Fibrous Glass	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		95-99 %

Analytical results and reports are generated by Forensic Analytical [illegible] such report. Results, reports or copies of same [illegible] This report applies only to the sample(s) tested. [illegible] except in full with approval from Forensic Analytical. [illegible] Forensic Analytical [illegible]

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Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503965
Sample Number: B4
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: North office building B - Floor tile.

Gross Description: Beige tile with tan mastic.

Comments: Asbestos in tile only (1-5%). Composite reported.

Microscopic Description

TOTAL ASBESTOS PRESENT:		1-5 %
Chrysotile	1-5 %	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		Non-Det.%
Cellulose	Non-Det.%	
Fibrous Glass	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		95-99 %

Analytical results and reports are generated [illegible] such report. Results, reports or copies of [illegible] This report applies only to the sample [illegible] except in full with approval from Forensic Analytical. [illegible] from Forensic Analytical. This report [illegible] Forensic Analytical [illegible] for a period of six months and are [illegible]

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[illegible]
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Los Angeles • [illegible] Laurel Park Road, Suite [illegible] • Phone [illegible] • Fax [illegible] 8684

Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503966
Sample Number: B5
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: North office building B - Sheetrock.

Gross Description: White drywall with fibrous backing.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:		Non-Det.%
Chrysotile	Non-Det.%	
Amosite	Non-Det.%	
	%	
	%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:		50-55 %
Cellulose	45-50 %	
Fibrous Glass	1-5 %	
	%	
	%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:		45-50 %

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Bulk Material Analysis

Method: 40 CFR 763, Subpart F, Appendix A (AHERA)

Client:
Hart Crowser, Inc.

One World Trade Center, Suite 2300
Long Beach, Ca 90831-2300

Client Number: 5261
Report Number: 572068
Date Received: 01/30/95

Lab Number: 59503967
Sample Number: B6
P.O. Num:
Job ID: 6756
Site: Trico - Torrance, CA.

Date Collected: 01/30/95

Location: North office building B - Sheetrock.

Gross Description: White drywall.

Comments:

Microscopic Description

TOTAL ASBESTOS PRESENT:			Non-Det.%
Chrysotile	Non-Det.%		
Amosite	Non-Det.%		
		%	
		%	
TOTAL NON-ASBESTOS FIBROUS MATERIAL PRESENT:			40-45 %
Cellulose	30-35	%	
Fibrous Glass	5-10	%	
		%	
		%	
TOTAL NON-ASBESTOS NONFIBROUS MATERIAL PRESENT:			55-60 %

PACCAR 00688

Forensic Analytical

BULK Request Form

Hart-Crowser

Phone: (310) 495 6360

Date: 30 JAN 1995

☒ PLM ☐ 2hr ☐ 24hr ☐ Ext ☐ P.C. 435

☐ TEM Bulk Qualitative
☐ TEM Bulk Quantitative
☐ TEM Water

Results Needed: _____

Contact: D. DARROW

P.O. #

Job ID: 6756

☐ AA Paint
☐ AA Soil
☐ AA Water
☐ AA Other _____

Results Needed: _____

Site: TRICO - Torrance

Sample Number	Date Collected	Sample Location/Description
A1	30 JAN 95	office bldg A floor tile
A2		office bldg A ceiling square
A3		office bldg A ceiling panel
A4		office bldg A floor tile
B1		south office bldg B floor tile
B2		s. office bldg B ceiling square
B3		north office bldg B floor tile
B4		north office bldg B floor tile

Relinquished By: [signature]
Date/Time: 30 Jan 95 1605

Received By: Susan [signature]
Date/Time 1/30/95 16:05

Relinquished By:
Date/Time:

Received By:
Date/Time

SF: 3777 Depot Road, Hayward, CA 94545.

LA: 19443 Laurel Park Road, Rancho Dominguez, CA 90220.

Forensic Analytical

BULK Request Form

Haut-Crowser

Phone: 310 495 6360

Date: 30 Jan 1995

☒ PLM ☐ 2hr ☐ 24hr ☐ Ext ☐ P.C. 435

☐ TEM Bulk Qualitative
☐ TEM Bulk Quantitative
☐ TEM Water

Results Needed: _____

Contact: D. Darrow

P.O. #

Job ID: 6756

☐ AA Paint
☐ AA Soil
☐ AA Water
☐ AA Other _____

Results Needed: _____

Site: Trico - Torrance

Sample Number	Date Collected	Sample Location/Description
B5	30 Jan 95	North office bldg B Sheet rock
B6	30 Jan 95	north office bldg B sheet rock

Relinquished By: [illegible]
Date/Time: 30 Jan 95 1605

Received By: Susan Fink
Date/Time 1/30/95 16:05

Relinquished By:
Date/Time:

Received By:
Date/Time

SF: 3777 Depot Road, Hayward, CA 94545.

LA: 19443 Laurel Park Road, Rancho Dominguez, CA 90220.

HARTCROWSER

Earth and Environmental Technologies

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Tel 509 946.4344

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Anchorage, Alaska 99503-2737
Fax 907.276.2104
Tel 907.276.7475

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Lake Oswego, Oregon 97035-8652
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Tel 415.391.1885

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Long Beach, California 90831-2300
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San Diego, California 92101-3546
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April 3, 1995

David Gurewitz, Esq.
Gurewitz & Lieb
Suite 350
10780 Santa Monica Blvd.
Los Angeles, CA 90025

Re: Trico - Peter Tsai/Mighty Enterprises; Trico Torrance Property

Dear Mr. Gurewitz:

This confirms your telephone conversation of today.

With regard to your communication of March 29 regarding the proposed retention of H20 Science, this letter confirms that, pursuant to the Trico - Tsai Commercial Real Estate Purchase Contract dated March 14, 1995, this consultant may be retained by Buyer Peter Tsai directly as the Buyer's environmental consultant.

Very truly yours,

G. Glen Morie
Secretary

GGM:PEG:lp
peg\0331peg2.std\4/4/95

cc: R. E. Bangert, II
R. K. Butler
J. Dunavant
R. C. Pettitt, Esq.
L. L. Sims

PACCAR Inc

March 31, 1995

David Gurewitz, Esq.
Gurewitz & Lieb
Suite 350
10780 Santa Monica Blvd.
Los Angeles, CA 90025

Re: Trico - Peter Tsai/Mighty Enterprises

Dear Mr. Gurewitz:

This confirms and supplements our telephone conversation of this morning.

With regard to your communication of March 29 regarding the H20 Science proposal and the discussion we had over the phone, Trico approves H2O Science as a consultant to be used by Peter Tsai. We understand the work plan that was presented to us is to be the Phase II investigation contemplated by the Sale Agreement in the cost of which Trico participates up to a $22,500 cap. Accordingly, we will review H20's proposal in that light.

You understand that Trico's consultant employed for purposes of the Torrance property is now Hart Crowser Inc., of Long Beach. Since PACCAR is reviewing three other consultants for the possible selection of one as consultant for all of PACCAR's properties in the Los Angeles area, it is possible that the consultant working on the Torrance property could change in the future. However, Hart Crowser will continue until replaced. We have had good results with Hart Crowser in the other locations along the west coast where we have used them.

Since this is the Phase II investigation and Hart Crowser will be involved in its review, we assume that Hart Crowser's fees should be included in the costs which are shared by the parties in conducting the Phase II investigation. We estimate those fees would not exceed $5,000.00, given the nature and extent of Hart Crowser's participation (i.e., H20 will do the actual testing and lab work.) Please advise if there is any disagreement over this assumption.

With respect with the actual H2O work proposal submitted with your March 29 letter, we have the following comments.

P O Box 1518 Bellevue Washington 98009 Telephone 206-455-7400
PACCAR Building 777-106th Avenue N E Bellevue Washington 98004 Facsimile 206-453-4900

Since Trico is required by the Sale Agreement to conduct a Phase I investigation and has done so, we believe the H2O work proposal should be held in abeyance until the Phase I study can be reviewed by H2O and amended accordingly. We expect that two copies of the Phase I study will be delivered to you by Wednesday April 5, and certainly by Friday, April 7.

Task 4.6 contemplates a meeting with the Regional Water Quality Control Board. Consistent with the provisions of the Purchase Agreement (Section 11(b)), Trico is to retain control over this meeting. We would prefer to set up the meeting and approve the agenda to be discussed, which H2O is free to propose. The buyer will be in attendance.

In Task 4.7, while Trico has no objection to H2O sampling wells installed by others and any off-site wells H2O is permitted to sample, we do not believe the costs of those samples should be included in the Phase II study because sampling data for all such wells is obtainable from Dames and Moore and other consultants compiling periodic reports in connection with the nearby Del Amo and Montrose investigations.

Task 4.7 talks about initial sampling of existing wells. Since we heard comments that the existing wells are incorrectly installed, there needs to be discussion between our Environmental Department and H2O over the necessity or benefits of additional sampling of the existing wells, and the intent of 4.8 to install additional new wells (where they would be installed and what purpose they would serve). Generally, our environmental people want to review the status of existing and proposed groundwater studies with H2O to make sure everybody is headed in the same direction. At first reading, the three additional wells proposed in 4.8 appear unnecessary to us, but this could change after discussion.

At Task 4.8.2, second paragraph, the language indicates that the new wells to be installed will be 4 inch wells. Our people question why a 2 inch well is not sufficient for the task, which will involve less expense.

In 4.12, our environmental people would like to have further discussion with H2O to include an additional task something like the following: "Assess likely cleanup measures to be required for the property given the nature of regional contamination in the vicinity of the property." As I commented to you, it has

always been a long-term assumption on the part of our environmental staff that specific groundwater remediation on this property is a less effective measure than some financial participation by the property owner in a regional cleanup.

In Section 7.0, the reference to whom the study has been prepared for should include not only Tsai and Mighty but also Trico, as this consultant in effect is doing Phase II work for both parties.

These are the preliminary matters we noted in connection with the H20 work order. If you would like to have H20 call our environmental people directly, they are Robert K. Butler (206-455-7435) and Larry Sims (206-453-4901), both of whom are in the same building as am I.

We will cooperate to the best of our ability to make sure that the Phase II investigation is complete, effective, and technically sound.

Very truly yours,

Phillip E. Gladfelter
Corporate Real Property Manager

PEG:lp
peg\0331peg1.std\3/31/95

cc: R. E. Bangert, II
R. K. Butler
J. Dunavant
R. C. Pettitt, Esq.
L. L. Sims

TRICO INDUSTRIES, INC.
KOBE HYDRAULIC PUMPS
P.O. Box 2909 • 3040 East Slauson Avenue, Huntington Park, California 90255
(213) 586-8800 • Telex: 683-1574 • FAX: (213) 586-8808/8809

March 30, 1995

Mr. Richard M. Muther
HYDRO-SEARCH, Inc.
5882 Bolsa Avenue
Huntington Beach, CA 92649

Re: Quote to Review Work Plan
Trico Industries, Inc.
1206 West 196th Street
Torrance, CA

Dear Mr. Muther,

The above referenced property is for sale by PACCAR/Trico. The prospective purchaser, with written approval from PACCAR/Trico, has the right to have an independent consulting firm, selected by the purchaser, perform additional investigations, tests and assessments respecting the property - which the purchaser wants to do.

Please submit a quote for the following:

1. Review the proposal.

2. Observe field operations (site walk, drilling, etc.).

3. Review consultants final report.

Please submit two copies of the proposals to:

Jim Dunavant
Trico Industries
3040 E. Slauson Avenue
Huntington Park, CA 90255

Inquires regarding this request can be obtained from Jim Dunavant at (213 586-8941.

Please submit your proposal by April 17, 1995.

Sincerely,

Jim Dunavant
Environmental Engineer
Trico Industries

TRICO INDUSTRIES, INC.
KOBE HYDRAULIC PUMPS
P.O. Box 2909 • 3040 East Slauson Avenue, Huntington Park, California 90255
(213) 586-8800 • Telex 683-1574 • FAX (213) 586-8808/8809

March 30, 1995

Mr. Robert Hartman
Huntingdon Engineering & Environmental, Inc.
22 Mauchly
Irvine, CA 92718

Re: Quote to Review Work Plan
Trico Industries, Inc.
1206 West 196th Street
Torrance, CA

Dear Mr. Hartman,

The above referenced property is for sale by PACCAR/Trico. The prospective purchaser, with written approval from PACCAR/Trico, has the right to have an independent consulting firm, selected by the purchaser, perform additional investigations, tests and assessments respecting the property - which the purchaser wants to do.

Please submit a quote for the following:

1. Review the proposal.

2. Observe field operations (site walk, drilling, etc.).

3. Review consultants final report.

Please submit two copies of the proposals to:

Jim Dunavant
Trico Industries
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Huntington Park, CA 90255

Inquires regarding this request can be obtained from Jim Dunavant at (213 586-8941.

Please submit your proposal by April 17, 1995.

Sincerely,

Jim Dunavant

Jim Dunavant
Environmental Engineer
Trico Industries

TRICO INDUSTRIES, INC.
KOBE HYDRAULIC PUMPS
P O Box 2909 • 3040 East Slauson Avenue, Huntington Park, California 90255
(213) 586-8800 • Telex 683-1574 • FAX (213) 586-8808/8809

March 30, 1995

Mr. William R. Bazlen
Kennedy/Jenks
17310 Red Hill Avenue, Suite 220
Irvine, CA 92714

Re: Quote to Review Work Plan
Trico Industries, Inc.
1206 West 196th Street
Torrance, CA

Dear Mr. Bazlen,

The above referenced property is for sale by PACCAR/Trico. The prospective purchaser, with written approval from PACCAR/Trico, has the right to have an independent consulting firm, selected by the purchaser, perform additional investigations, tests and assessments respecting the property - which the purchaser wants to do.

Please submit a quote for the following:

1. Review the proposal.

2. Observe field operations (site walk, drilling, etc.).

3. Review consultants final report.

Please submit two copies of the proposals to:

Jim Dunavant
Trico Industries
3040 E. Slauson Avenue
Huntington Park, CA 90255

Inquires regarding this request can be obtained from Jim Dunavant at (213 586-8941.

Please submit your proposal by April 17, 1995.

Sincerely,

Jim Dunavant
Environmental Engineer
Trico Industries

TRICO INDUSTRIES, INC.
KOBE HYDRAULIC PUMPS
P O Box 2909 • 3040 East Slauson Avenue, Huntington Park, California 90255
(213) 586-8800 • Telex. 683-1574 • FAX· (213) 586-8808/8809

March 30, 1995

Mr. Richard Coles
Hart Crowser
1 World Trade Center, Suite 2300
Long Beach, CA 90831-2300

Re: Quote to Review Work Plan
Trico Industries, Inc.
1206 West 196th Street
Torrance, CA

Dear Mr. Coles,

The above referenced property is for sale by PACCAR/Trico. The prospective purchaser, with written approval from PACCAR/Trico, has the right to have an independent consulting firm, selected by the purchaser, perform additional investigations, tests and assessments respecting the property - which the purchaser wants to do.

Please submit a quote for the following:

1. Review the proposal.

2. Observe field operations (site walk, drilling, etc.).

3. Review consultants final report.

Please submit two copies of the proposals to:

Jim Dunavant
Trico Industries
3040 E. Slauson Avenue
Huntington Park, CA 90255

Inquires regarding this request can be obtained from Jim Dunavant at (213 586-8941.

Please submit your proposal by April 17, 1995.

Sincerely,

Jim Dunavant
Environmental Engineer
Trico Industries

GUREWITZ & LIEB
ATTORNEYS AT LAW

SUITE 350
10780 SANTA MONICA BOULEVARD
LOS ANGELES, CALIFORNIA 90025

TELEPHONE (310) 475-8551
FAX (310) 474-6225

March 29, 1995

BY MESSENGER

Mr. Jim Donovan
Trico Industries, Inc.
3040 East Slauson Avenue
Huntington Park, California 90255

Re: Our Client: Peter Tsai/Mighty Enterprises, Inc./In re Purchase Contract for Real Property at 1206 West 196th Street store in Torrance, California
Our File No: 2329

Dear Mr. Donovan:

As we briefly discussed over the telephone, Roger Pettitt gave me your name as the person to deal with concerning the environmental investigation being conducted by Peter Tsai on the above-referenced property as part of his due diligence.

Mr. Tsai has been in contact with H2O Science, Inc. ("H2O"), environmental consultants, concerning additional investigations, tests and assessments respecting the property. Paragraph 11.(d) of the Purchase Contract provides that Trico's written approval is required for additional investigations, tests, etc. as to the property. That paragraph also provides that additional testing is to be done by SCS Engineers <u>or other consultants retained by Trico</u> at Mr. Tsai's instance.

I have received a retainer agreement and proposal from H2O, which I am enclosing herewith. I do not know whether Trico desires to follow the letter of the contract and retain H2O at Mr. Tsai's instance, or whether you would prefer that Mr. Tsai directly engage them, but otherwise in accordance with the contract. I am requesting that Trico either engage H2O, or signify in writing that Mr. Tsai may do so. I am further requesting Trico's approval to the proposal of H2O which is enclosed herewith.

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I request your most prompt attention to this request.

Very truly yours,

GUREWITZ & LIEB, Attorneys at Law

David M. Gurewitz

DMG/jh
Enclosures
cc: Roger Pettitt /w encls. (letter only by fax)
Peter Tsai
Ward Benshoof

L:\WPDATA\DMG_LTR\DONOVAN1.2329

PROPOSAL FOR PRELIMINARY SITE CHARACTERIZATION
TRICO INDUSTRIES PROPERTY, 19706 SOUTH NORMANDIE AVENUE
LOS ANGELES COUNTY, CALIFORNIA

Prepared For:
Mr. Peter Tsai
MIGHTY U.S.A. INC.
19706 South Normandie Avenue
Torrance, CA 90502

Prepared By:
H2O Science, Inc.
5500 Bolsa Avenue, Suite 105 (714) 379-1157
Huntington Beach, CA 92649

March 20, 1995
P0304

1.0 INTRODUCTION

The following is a proposal to perform preliminary site characterization at the Trico Industries Property (referred to herein as the site). The site is located at 19706 South Normandie Avenue, in the unincorporated territory of the County of Los Angeles, California. The proposal is based upon the following:

- Our review of the information provided in reports for the site prepared by other consultants;
- An initial site inspection conducted by H2O Science personnel on March 14, 1995;
- Discussions between Anthony Brown of H2O Science and David Gurewitz of Gurewitz and Lieb, Ward Benshoof of McClintock, Weston, Benshoof, Rochefort, Rubalcava and MacCuish (McClintock-Weston), and Peter Tsai of MIGHTY U.S.A. INC. (Mighty).

2.0 TECHNICAL EVALUATION

An Introductory Statement of Qualifications (SOQ) for H2O Science has been provided with this proposal for review.

3.0 OBJECTIVES

The objectives of the proposed scope of work are as follows:

- To conduct a preliminary site characterization of vadose zone, ground water and contaminant conditions; and
- To prepare initial cost estimates for site remediation.

4.0 SCOPE OF WORK

The scope of work proposed by H2O Science consists of the following tasks:

Task#	Description
1	Project Take-over and Evaluation
2	Site Description
	2.1 Background Information
	2.2 Field Reconnaissance
	2.3 Site Vicinity Map
3	Health and Safety Plan
4	Characterization Work Plan
5	Co-ordinate with Mighty and Trico
6	Meeting with the RWQCB
7	Initial Sampling of Existing Monitoring Wells

PACCAR 00703

8 Well Installation
- 8.1 Pre-field and Permits
- 8.2 Soil Borings and Well Installation
- 8.3 Well Development

9 Sampling of New Wells

10 Soil and Water Handling

11 Preliminary Characterization Report

12 Initial Remediation Cost Estimates

All work will be performed in accordance with accepted environmental guidelines, applicable governmental standards, and the quality assurance/quality control (QA/QC) procedures employed by H2O Science at other hazardous waste sites.

4.1 TASK 1: PROJECT TAKE-OVER AND EVALUATION

The work conducted at the site by previous consultants will be reviewed. The data collected will be summarized, and a framework established for the next phase of investigation proposed herein.

4.2 TASK 2: SITE DESCRIPTION

4.2.1 BACKGROUND INFORMATION

Background information will be reviewed regarding the following:

- Site location and physiographic setting;
- Site area land use;
- Site history;
- Previous site investigations;
- Site surface conditions;
- Regional hydrology, geology and hydrogeology;
- Regional ground water quality and nearby water supply wells;
- Location of nearby sensitive receptors;
- Site geology;
- Site hydrogeology;
- Hazardous waste investigations in the site vicinity.

4.2.2 FIELD RECONNAISSANCE

A field sketch of the site and site vicinity will be prepared. The following will be identified during field mapping activities in the site area:

PACCAR 00704

- Site and site vicinity topography, surface soil types and geologic outcrops;
- Surface water bodies, including creeks, ponds, wetlands, storm drains, catch basins, lined channels and underground culverts;
- Site vicinity land use;
- Surface cover and vegetation, particularly ares of increased infiltration capacity;
- Location of hydrocarbon seeps and surface staining;
- Any potential sources of subsurface contamination, including underground storage tanks (USTs), above ground tanks, dry sumps, steam cleaning or wash-down areas, clarifiers, vehicle maintenance areas, storage ponds, hazardous materials storage areas and miscellaneous drums/containers;
- Any surface trace of subsurface utilities;
- The location of overhead power lines and electrical transformers;
- Any public wells, monitoring wells or borings; and
- Any remediation activities at nearby facilities.

4.2.3 SITE VICINITY MAP

A recent aerial photograph and County Assessors maps will be obtained to prepare a site vicinity map. This map will be annotated with the observations made during field reconnaissance.

4.3 TASK 3: HEALTH AND SAFETY PLAN

A Site Health and Safety Plan will be prepared. The Site Health and Safety Plan will include:

- Project Safety Personnel, assignments and duties;
- The Project Scope of Work;
- A Site Hazard Analysis, including chemical hazards, general safety hazards and heat stress;
- General Health and Safety Requirements, including medical clearance, safety orientation, work zone designation, and personal protective equipment and clothing;
- Exposure Monitoring;
- Decontamination Procedures;
- General Work Practices;
- Standard Operating Procedures;
- Training Requirements;
- Medical Surveillance Program;
- Record Keeping;
- Emergency Response Procedures, including physical injury, fire, explosion and property damage, emergency telephone numbers, work site address and contacts, hospital address and route, and standard procedures for reporting emergencies; and
- Hazardous Materials Information.

PACCAR 00705

The Site Health and Safety Plan will be updated for all subsequent investigation.

4.4 TASK 4: CHARACTERIZATION WORK PLAN

A work plan will be prepared for this phase of investigation at the site. The work plan will include:

- A site description;
- An outline of the work to be performed as described in this proposal;
- Figures (Site Location Map, Site Vicinity Map and Site Plan);
- Typical Field Procedures;
- The Site Health and Safety Plan; and
- A QA/QC Plan;

4.5 TASK 5: CO-ORDINATE WITH MIGHTY AND TRICO

H2O Science personnel will carefully coordinated site work with the property owner (Trico), their environmental consultant (SCS Engineers) and Mighty in an effort to avoid disrupting business at the site.

4.6 TASK 6: MEETING WITH RWQCB

It is anticipated that H2O Science personnel will set-up and attend a meeting with the Regional Water Quality Control Board (RWQCB), Los Angeles Region.

4.7 TASK 7: INITIAL SAMPLING OF EXISTING WELLS

Two ground water monitoring wells were installed at the site by SCS Engineers and three wells were installed at the site as part of a nearby hazardous waste investigation. In addition, approximately four wells have been installed within 500 feet (152 m) of the site as part of this nearby investigation. These wells will be monitored and sampled prior to the installation of new wells (Task 8) to provide initial data on ground water contaminant conditions.

H2O Science personnel will contact the responsible parties to gain access to the wells installed as part of the nearby investigation. However, should it appear that obtaining permission may take an unacceptably long time only the on-site wells will be sampled.

All wells will be purged of ground water until hydro-geochemical parameters have stabilized, approximately five casing volumes. The wells will then be allowed to recover to 80% pre-purged volume, or for 2 hours in the event of slow recovery. The ground water samples will be collected using disposable teflon™ bailers. The samples will be sent to a State-certified hazardous waste testing laboratory and

PACCAR 00706

analyzed for Volatile Organic Compounds (VOCs) using Environmental Protection Agency (EPA) Method 624.

4.8 TASK 8: WELL INSTALLATION

Three additional wells be installed at the site at locations determined during Field Reconnaissance (Task 4.2.2).

4.8.1 PRE-FIELD AND PERMIT ACTIVITIES

This task will include project set-up, notification of concerned parties prior to commencing field work, marking of the site, a visual site reconnaissance and hand tape survey check, utility verification and a critical path evaluation for permitting requirements and scheduling.

4.8.2 MONITORING WELL INSTALLATION

The borings/monitoring wells will be drilled to a depth of approximately 70 feet (21.3 m) using 6-inch (15 cm) diameter hollow stem augers. The borings will be sampled at 5-foot (1.5 m) intervals from ground surface to a depth of 40 feet (12.2 m) and thence continuously to the total depth of the boring. The samples will be sent to a State-certified hazardous waste testing laboratory. Based upon the results of field screening for VOCs, approximately five samples from each boring will be analyzed for VOCs using EPA Method 8240.

The borings will be over-reamed with 10-inch (25 cm) diameter hollow stem augers. The borings will be completed as 4-inch (10 cm) diameter ground water monitoring wells. The wells will be constructed using 0.02 inch slot steel screen, a 5-foot (1.5 m) long steel riser blank and blank Schedule 80 PVC casing to ground surface. The annulus will be back-filled with no.2/12 Monterey sand pack and hydrated bentonite. The screening of wells will be based upon field observations.

4.8.3 MONITORING WELL DEVELOPMENT

The new monitoring wells will be developed immediately following installation. The wells will be developed by block surging and bailer purging using the drill rig. Ground water will be removed until clear of suspended fine grained material, and the hydro-geochemical parameters have stabilized. All wells will be surveyed for horizontal location and vertical elevation soon after construction.

4.9 TASK 9: SAMPLING OF NEW WELLS

The new wells will be monitored and sampled following development. Monitoring, purging, sampling and analysis will be the same as that described in Task 7.

PACCAR 00707

4.10 TASK 10: SOIL AND WATER HANDLING

All soil cuttings generated during the installation of the proposed wells, all purged ground water from well development and sampling, and all decontamination water will be stored on-site in Department of Transportation (DOT) approved 55 gallon (208 liter) drums. The property owner will be responsible for the transportation and disposal of the drum contents.

4.11 TASK 11: PRELIMINARY CHARACTERIZATION REPORT

Upon completion of all field and analytical laboratory work associated with site characterization, the results of the field investigation will be compiled, analyzed and interpreted. All collected data will be presented in a report containing the findings and conclusions from this phase of the investigation.

4.12 INITIAL REMEDIATION COST ESTIMATES

Based upon the results of this preliminary site characterization, H2O Science will prepare initial cost estimates for the following:

- Additional vadose zone characterization (if required);
- Vadose zone remediation;
- Additional ground water characterization; and
- Ground water remediation.

5.0 SCHEDULE

H2O Science is prepared to start work on the tasks outlined herein immediately following written authorization to proceed from the client. The following schedule is based upon a contract start date of March 20, 1995, and can be adjusted to meet the requirements of the client:

Task#	Description		Schedule
1	Project Take-over and Evaluation		March 1995
2	Site Description		March 1995
	2.1	Background Information	March 1995
	2.2	Field Reconnaissance	March 1995
	2.3	Site Vicinity Map	March 1995
3	Health and Safety Plan		March 1995
4	Characterization Work Plan		March 1995
5	Co-ordinate with Mighty and Trico		Ongoing
6	Meeting with the RWQCB		March 1995

PACCAR 00708

7	Initial Sampling of Existing Monitoring Wells		April 1995
8	Well Installation		May 1995
	8.1	Pre-field and Permits	April 1995
	8.2	Soil Borings and Well Installation	May 1995
	8.3	Well Development	May 1995
9	Sampling of New Wells		May 1995
10	Soil and Water Handling		May 1995
11	Preliminary Characterization Report		June 1995
12	Initial Remediation Cost Estimates		June 1995

6.0 COSTS

The estimated costs to conduct this work are provided in a separate enclosure.

7.0 CLOSURE

This proposal has been prepared for the exclusive use of MIGHTY U.S.A. INC. as it pertains to the Trico Industries Property located at 19706 South Normandie Avenue, in the unincorporated territory of the County of Los Angeles, California.

Respectfully Submitted,
H2O Science, Inc.

Anthony Brown
Principal Hydrologist

PACCAR 00709

COST ESTIMATES SUMMARY

PROPOSAL: MIGHTY - Trico
NUMBER: P0304
DATE: 03/17/95

TASK	1: PROJECT TAKE-OVER AND EVALUATION	$990.00
	2: SITE DESCRIPTION	$3,980.00
	3: HEALTH AND SAFETY PLAN	$460.00
	4: WORK PLAN	$910.00
	5: CO-ORDINATE WITH MIGHTY AND TRICO	$670.00
	6: MEETING WITH RWQCB	$660.00
	7: INITIAL SAMPLING OF EXISTING WELLS	$3,428.40
	8: WELL INSTALLATION	$23,743.00
	9: SAMPLING OF NEW WELLS	$1,433.40
	10: SOIL AND WATER HANDLING	$240.00
	11: PRELIMINARY CHARACTERIZATION REPORT	$5,420.00
	12: INITIAL REMEDIATION COST ESTIMATES	$3,080.00
	PROPOSAL TOTAL	$45,014.80

COST ESTIMATES
BREAKDOWN BY TASK

PROPOSAL: MIGHTY - Trico
NUMBER: P0304
DATE: 03/17/95

TASK 1: PROJECT TAKE-OVER AND EVALUATION

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Report Review	Principal	$110.00	hour	6	0.00	$660.00
	Proposal	Principal	$110.00	hour	3	0.00	$330.00
SUBTOTAL	TASK 1						$990.00

TASK 2: SITE DESCRIPTION

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Site History	Project	$75.00	hour	2	0.00	$150.00
	Geology	Project	$75.00	hour	2	0.00	$150.00
	Hydrogeology	Project	$75.00	hour	2	0.00	$150.00
	Water Wells	Project	$75.00	hour	1	0.00	$75.00
	GW Quality	Project	$75.00	hour	1	0.00	$75.00
	Sensitive Receptors	Project	$75.00	hour	2	0.00	$150.00
	Field Reconn.	Project	$75.00	hour	8	0.00	$600.00
	Site Vicinity Map	Project	$75.00	hour	2	0.00	$150.00
		Draftsman	$50.00	hour	6	0.00	$300.00
	Haz. Waste Sites	Project	$75.00	hour	24	0.00	$1,800.00
							$3,600.00
Equipment	Site Visit	Vehicle	$75.00	day	1	0.00	$75.00
	Agency Visit	Vehicle	$75.00	day	1	0.00	$75.00
							$150.00
Subcontractors	Haz-Sites	VISTA	$200.00	each	1	0.15	$230.00
SUBTOTAL	TASK 2						$3,980.00

TASK 3: HEALTH AND SAFETY PLAN

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Compilation	Principal	$110.00	hour	1	0.00	$110.00
		Project	$75.00	hour	4	0.00	$300.00
		Draftsman	$50.00	hour	1	0.00	$50.00
SUBTOTAL	TASK 3						$460.00

TASK 4: WORK PLAN

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Work Scope	Project	$75.00	hour	2	0.00	$150.00
	Description	Project	$75.00	hour	2	0.00	$150.00
	Field Procedures	Project	$75.00	hour	1	0.00	$75.00
	QA/QC Plan	Project	$75.00	hour	1	0.00	$75.00
	Plan Prep.	Principal	$110.00	hour	1	0.00	$110.00
		Project	$75.00	hour	2	0.00	$150.00
		Draftsman	$50.00	hour	4	0.00	$200.00
SUBTOTAL	TASK 4						$910.00

TASK 5: CO-ORDINATE WITH MIGHTY AND THICO

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Co-ordinate	Principal	$110.00	hour	2	0.00	$220.00
		Project	$75.00	hour	6	0.00	$450.00
SUBTOTAL	TASK 5						$670.00

TASK 6: MEETING WITH RWQCB

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Co-ordinate	Principal	$110.00	hour	2	0.00	$220.00
	Meeting	Principal	$110.00	hour	4	0.00	$440.00
SUBTOTAL	TASK 5						$660.00

TASK 7: INITIAL SAMPLING OF EXISTING WELLS

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Access	Project	$75.00	hour	4	0.00	$300.00
	Mob/Demob.	Project	$75.00	hour	1	0.00	$75.00
		Project	$75.00	hour	1	0.00	$75.00
	Sampling	Project	$75.00	hour	8	0.00	$600.00
		Technician	$40.00	hour	8	0.00	$320.00
							$1,370.00
Equipment	Well Sampling	H2O	$200.00	day	1	0.00	$200.00
Subcontractors	Laboratory	VOCs	$150.00	each	8	0.15	$1,380.00
Materials	Sample Cont.	VOA	$2.00	each	8	0.15	$18.40
	Drums	DOT	$40.00	each	10	0.15	$460.00
							$478.40
SUBTOTAL	TASK 7						$3,428.40

TASK 8. WELL INSTALLATION

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Pre-field/Permit	Principal	$110.00	hour	1	0.00	$110.00
		Project	$75.00	hour	4	0.00	$300.00
	Mob/Demob	Project	$75.00	hour	4	0.00	$300.00
	-	Technician	$40.00	hour	4	0.00	$160.00
	Drilling/Wells	Project	$75.00	hour	30	0.00	$2,250.00
		Technician	$40.00	hour	30	0.00	$1,200.00
	Development	Project	$75.00	hour	3	0.00	$225.00
		Technician	$40.00	hour	3	0.00	$120.00
	Well Boxes	Technician	$40.00	hour	6	0.00	$240.00
							$4,905.00
Equipment	Drilling	H2O	$400.00	day	3	0.00	$1,200.00
	Development	H2O	$150.00	day	1	0.00	$150.00
	Well Boxes	H2O	$100.00	day	1	0.00	$100.00
							$1,450.00
Subcontractors	HSA Rig	Mob/Demob	$125.00	hour	6	0.15	$862.50
		Drilling	$125.00	hour	30	0.15	$4,312.50
		Development	$125.00	hour	4	0.15	$575.00
		Chase Truck	$100.00	day	3	0.15	$345.00
		Steam Cleaner	$100.00	day	3	0.15	$345.00
		Extra Man	$25.00	hour	30	0.15	$862.50
	Concrete Coring	Mulder	$70.00	each	3	0.15	$241.50
	Laboratory	VOCs	$150.00	each	15	0.15	$2,587.50
							$10,131.50
Materials	Sample Sleeves	H2O	$4.00	each	60	0.15	$276.00
	Well Materials	Diversified	$20.00	foot	210	0.15	$4,830.00
	Well Boxes	Diversified	$70.00	each	3	0.15	$241.50
	Drums	DOT	$40.00	each	25	0.15	$1,150.00
	Permits	LACDHS	$220.00	each	3	0.15	$759.00
							$7,256.50
SUBTOTAL	TASK 8						$23,743.00

TASK 9: SAMPLING OF NEW WELLS

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Mob/Demob	Project	$75.00	hour	1	0.00	$75.00
		Technician	$40.00	hour	1	0.00	$40.00
	Sampling	Project	$75.00	hour	4	0.00	$300.00
		Technician	$40.00	hour	4	0.00	$160.00
							$575.00
Equipment	Well Sampling	H2O	$150.00	day	1	0.00	$150.00
Subcontractors	Laboratory	VOCs	$150.00	each	3	0.15	$517.50
Materials	Sample Cont.	VOA	$2.00	each	3	0.15	$6 90
	Drums	DOT	$40 00	each	4	0.15	$184.00
							$190.90
SUBTOTAL	TASK 9						$1,433.40

TASK 10: SOIL AND WATER HANDLING

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Co-ordinate	Project	$75.00	hour	2	0.00	$150.00
	On-site	Technician	$40.00	hour	6	0.00	$240.00
SUBTOTAL	TASK 10						$390.00

TASK 11: PRELIMINARY CHARACTERIZATION REPORT

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	Data Analysis	Principal	$75.00	hour	2	0.00	$150.00
		Proj.Manager	$40.00	hour	4	0.00	$160.00
		Project	$75.00	hour	24	0.00	$1,800.00
		Draftsman	$50.00	hour	12	0.00	$600.00
	Report Prep.	Principal	$75.00	hour	2	0.00	$150.00
		Proj.Manager	$40.00	hour	4	0.00	$160.00
		Project	$75.00	hour	24	0.00	$1,800.00
		Draftsman	$50.00	hour	12	0.00	$600.00
SUBTOTAL	TASK 11						$5,420.00

TASK 12: INITIAL REMEDIATION COST ESTIMATES

SERVICE	DESCRIPTION	DISC/SUB	RATE	UNIT	NO.	M/UP	TOTAL
Professional	VZ Charac.	Principal	$110.00	hour	2	0.00	$220.00
	VZ Remediation	Proj.Manager	$110.00	hour	8	0.00	$880.00
	GW Charac.	Project	$110.00	hour	6	0.00	$660.00
	GW Remediation	Draftsman	$110.00	hour	12	0.00	$1,320.00
SUBTOTAL	TASK 12						$3,080.00

WORK ORDER RELEASE FOR
H2O SCIENCE, INC

W.O. No.: 024-001

This Agreement is by and between:

MIGHTY, U.S.A, INC.
19706 South Normandie Avenue
Torrance, CA 90502

H2O Science, Inc.
5500 Bolsa Avenue, Suite 105
Huntington Beach, CA 92649

hereinafter called CLIENT

hereinafter called H2O Science.

CLIENT hereby agrees to engage H2O Science to provide the services set forth in Part I and H2O Science agrees to perform the services for the compensation set forth in Part II. The CLIENT and H2O Science also agree to be bound by the provisions of the Service Agreement.

PROJECT: MIGHTY - Trico
NO.: 024-001

PART I: SCOPE OF SERVICES
Scope of work as described in Proposal No. P0304 - Proposal for Preliminary Site Characterization, 19706 South Normandie Avenue, Los Angeles County, California

PART II: COMPENSATION
The work to be performed on a time and materials basis for an estimated cost of $45,000. A breakdown of estimated costs is provided in the aforementioned Proposal No. P0304.

APPROVED FOR CLIENT:	APPROVED FOR H2O SCIENCE:
Signed:	Signed:
Name:	Name: Anthony Brown
Title:	Title: Principal Hydrologist
Date:	Date: 3-20-95

H2O Science, Inc.

SERVICES AGREEMENT

The terms and conditions set forth below govern all work or services ordered by CLIENT as described and set forth in any Work Order Release, Purchase Order, Change Order and/or Proposal (commonly referred to herein as the Work Order) of H2O Science, Inc. (H2O Science). The provisions of said Work Order shall govern the scope of services to be performed, including the time schedule, compensation and any other special terms. The terms and conditions contained herein shall otherwise apply unless expressly stated to the contrary or inconsistent with said Work Order.

1. Compensation
Unless otherwise stated in H2O Science's Work Order, CLIENT agrees to compensate H2O Science in accordance with H2O Science's published rate schedule in effect on the date when the services are performed. A copy of the schedule currently in effect is attached hereto as Exhibit A. H2O Science's rate schedule is revised periodically; and H2O Science will notify CLIENT of any such revisions and the effective date thereof which shall be not less than thirty (30) days after receipt of such notice. As to those services for which no schedule exists, H2O Science shall be compensated on a time and materials basis as set forth in any change order executed pursuant to this Agreement.

2. Payment
Unless otherwise agreed to in writing, invoices will be submitted once a month at the discretion of H2O Science. Payment of invoices is due within ten (10) days of receipt of the invoice. Invoices not paid within thirty (30) days after date of delivery or mailing shall be deemed delinquent and shall bear interest at a rate of 1-1/2% per month not to exceed the maximum rate allowed by law.

3. Independent Contractor
H2O Science shall be fully independent in performing the services and shall not act as an agent or employee of CLIENT. As such, H2O Science shall be solely responsible for its employees, subcontractors, and agents and for their compensation, benefits, contributions, and taxes, if any.

4. Documentation, Records, Audit
When requested by CLIENT, H2O Science shall provide CLIENT with copies of all documents relating to the service(s) performed, including the handling, transportation, storage, treatment, and disposal of material hereunder and the related licenses and permits issued by governmental authorities.

H2O Science shall maintain true and correct records in connection with each service performed and all transactions related thereto and shall retain all such records for twelve (12) months after the end of the calendar year in which the last service pursuant to a particular Work Order was performed under this Agreement. CLIENT, at its expense and upon reasonable notice, may from time to time during the term of this Agreement, and at any time after the date the service(s) were performed, up to twelve (12) months after the calendar year in which the last service(s) were performed, audit all records of H2O Science in connection with all costs and expenses for which it was invoiced, on a particular Work Order. Upon completion of this audit, the results shall be presented to H2O Science, and CLIENT shall pay H2O Science any compensation due as shown by the audit. Any amount as shown by the audit by which the total payment by CLIENT to H2O Science exceeds the amount due H2O Science, shall be returned to CLIENT.

5. H2O Science Warranties, Representations and Covenants
H2O Science warrants, represents, and covenants that: (a) it has the capability, experience and means to perform the services contemplated by this Agreement; and, (b)it shall perform the services in accordance with the standards of care and diligence normally practiced by similarly situated professionals who perform services of a similar nature; and it shall comply with all applicable and existing federal, state, and local laws, regulations, and ordinances, and CLIENT's standards and specifications as known to H2O Science prior to commencement of work hereunder.

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If within one (1) year after completion of any work provided hereunder H2O Science shall receive notice from CLIENT of any services performed by H2O Science that fail to meet the standard of the foregoing warrant, H2O Science shall promptly commence such corrective measures within it original scope of work as may be reasonably necessary or required to remedy such defects or deficiencies in the original services provided by H2O Science.

EXCEPT AS SET FORTH ABOVE, H2O Science MAKES NO WARRANTY, EXPRESS OR IMPLIED, IN FACT OR BY LAW, WHETHER OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE CONCERNING ANY OF THE MATERIALS OR SERVICES WHICH MAY BE FURNISHED PURSUANT TO THIS AGREEMENT; provided, however, H2O Science shall assign to CLIENT its rights under any available warranties applicable to equipment purchased by H2O Science and provided as part of work performed hereunder.

6. CLIENT Warranties Representations and Covenants

CLIENT warrants, represents, and covenants that CLIENT will provide H2O Science with all relevant information reasonably available to CLIENT concerning the composition, quantity, toxicity, or potentially hazardous properties of any materials known or believed to be present at the site for which services are requested, shall consult with H2O Science at such time as requested by H2O Science to convey and discuss materials, data and information requested, shall provide H2O Science reasonable access to CLIENT's location necessary to perform work, and shall secure and provide all special licenses and permits required for performance of the services provided hereunder.

CLIENT will provide H2O Science with all relevant information available to it concerning the site for which services are requested, including without limitation any hazards which may be present, summary of assessments of the sites past and present, compliance status, and the status of any filed or pending judicial or administrative action concerning the site.

CLIENT represents that to the best of its knowledge, records and investigation, it has disclosed to H2O Science the existence of all hazardous wastes or toxic substances (including but not limited to asbestos), located at or near the Project site. Client acknowledges that such materials, including the related effects of environmental impairment, are largely uninsurable risks excluded from H2O Science's standard insurance. As a material inducement to H2O Science's acceptance of this assignment, CLIENT agrees to indemnify, hold harmless and defend H2O Science from and against any and all claims, liability or damages, however caused, associated with the presence, discharge, release or escape of such waste or contamination. In the event substances or contamination beyond that originally represented by CLIENT is encountered H2O Science may suspend its services hereunder and enter into good faith renegotiation of this Agreement.

Except as set forth above, CLIENT MAKES NO WARRANTY, EXPRESS OR IMPLIED IN FACT OR BY LAW, WHETHER OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE OR OTHERWISE, concerning any materials with respect to which CLIENT may request services.

7. Indemnity

a. Subject to the limitations of Section 8 below, H2O Science agrees to indemnify and hold harmless CLIENT (including its officers, directors, employees, and agents) from and against any and all losses, damages, liabilities and expenses (including legal fees and reasonable costs of investigation) resulting from or arising out of (a) failure of H2O Science to comply in material respects with federal, state, and local laws and regulations applicable to services undertaken by H2O Science hereunder; (b) material breach by H2O Science of warranties hereunder; or (c) any injury or death of any person (including employees and agents of CLIENT and H2O Science), damage or loss or destruction of any property (including property of CLIENT and H2O Science and their respective employees and agents) resulting from or arising out of negligence or willful misconduct on the part of H2O Science in performing services hereunder, except to the extent any losses, damages, liabilities, or expenses result from, are attributable to, or arise out of (i) any negligence or willful misconduct of CLIENT; (ii) any delay attributable to CLIENT's conduct; (iii) any breach by CLIENT of any warranties or other provisions hereunder.

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b. CLIENT: CLIENT agrees to indemnify and hold harmless H2O Science (including its officers, directors, employees, and agents) from and against any and all losses, damages, liabilities, and expenses (including legal fees and reasonable costs of investigation) resulting from or arising out of (a) any negligence or wilful misconduct of CLIENT, (b) any breach by CLIENT of any warranties or other provisions hereunder, (c) any condition existing at the site prior to the arrival of H2O Science of which H2O Science had no actual knowledge and over which H2O Science had no control.

8. Limitation of Liability

CLIENT agrees to limit H2O Science's aggregate liability for damages arising out of Services rendered hereunder, whether arising out of negligence, strict liability, contract or otherwise, including liability to third parties to an amount not to exceed $50,000 or ten percent (10%) of the gross billings of H2O Science to Client hereunder, whichever is greater, and shall indemnify, hold harmless and defend H2O Science against any liability in excess of that amount.

NEITHER PARTY SHALL BE RESPONSIBLE OR HELD LIABLE TO THE OTHER FOR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO LOSS OF USE, LOSS OF PROFIT, LOSS OF INVESTMENT, LOSS OF PRODUCT OR BUSINESS INTERUPTION. THE OBLIGATIONS OF AND/OR REMEDIES AGAINST H2O Science PROVIDED IN THIS AGREEMENT ARE EXCLUSIVE AND IN LIEU OF ANY OTHER RIGHTS OR INDEMNIFICATIONS, RELEASES FROM LIABILITY AND LIMITATIONS OF LIABILITY SHALL APPLY NOTWITHSTANDING THE FAULT OR NEGLIGENCE, ACTIVE OR PASSIVE, OF THE PARTY INDEMNIFIED, RELEASED OR WHOSE LIABILITY IS LIMITED.

9. Insurance

Upon request, H2O Science shall furnish to CLIENT copies of insurance certificates evidencing its present level of insurance coverage for: Workers' Compensation, Employer's Liability, Commercial Liability Insurance, (including Contractual Liability and Automobile Liability) and any other coverage available to H2O Science or required by CLIENT. The certificates shall specify the dates when such insurance expires and shall provide further that CLIENT shall be given not less than thirty (30) days written notice before cancellation of, or any material change in such insurance. H2O Science will also maintain the insurance coverage throughout the terms of the contract.

10. Patents and Inventions

CLIENT shall retain all right and title to all patentable and unpatentable inventions, including confidential know-how, developed by it and/or by H2O Science hereunder in CLIENT's field of expertise.

H2O Science shall retain all right and title to all patentable and unpatentable inventions, including confidential know-how, developed by it hereunder in its field of expertise. H2O Science shall grant to CLIENT a royalty-free, nonexclusive and nontransferable license under any such developed inventions and know-how to use the same in any of CLIENT's facilities.

11. Patent Protection

H2O Science shall use its best efforts to provide services which do not infringe on any valid patent or involve the use of any confidential information that is the property of others unless H2O Science is licensed or otherwise has the right to use and dispose of the patent information. H2O Science shall also use its best efforts to inform CLIENT of any patent infringement that may be reasonably expected to result from the use of the services. However, the best efforts of H2O Science shall not include a duty to conduct and/or prepare a patent search and/or opinion.

12. Confidentiality

Each party shall retain as confidential all information and data furnished to it by the other party which relate to the other party's technologies, formulae, procedures, processes, methods, trade secrets, ideas, improvements, inventions, and/or computer programs, which are designated in writing by such other party as confidential at the time of transmission and are obtained or acquired by the receiving party in connection with this Work Order or Agreement, and shall not disclose such information to any third party unless required by a regulatory agency.

However, nothing herein is meant to prevent nor shall it be interpreted as preventing either H2O Science or CLIENT from disclosing and/or using said information or data (a) when the information or data is actually known to the receiving party before being obtained or derived from the transmitting party; or (b) when the information or data is

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generally available to the public without the receiving party's fault at any time before or after it is acquired from the transmitting party; or (c) where the information or data is obtained or acquired in good faith at any time by the receiving party from a third party who has the same in good faith and who is not under any obligation to the transmitting party in respect thereof; or (d) where a written release is obtained by the receiving party from the transmitting party.

13. Force Majeure
Neither party shall be deemed in default of this Agreement or any order hereunder to the extent that any delay or failure in the performance of its obligations results, without its fault or negligence, from any cause beyond its reasonable control, such as acts of God, acts of civil or military authority, embargoes, epidemics, war, riots, insurrections, fires, explosions, earthquakes, floods, adverse weather conditions, strikes, or lock-outs, and changes in laws, statutes, regulations or ordinances.

14. Notice
Any notice, communication, or statement required or permitted to be given hereunder shall be in writing and deemed to have been sufficiently given when delivered in person or sent by telex, wire, or by certified mail, return receipt requested, postage prepaid, to the address of the party set forth below, or to such other address for either party as that party may be written notice designate.

15. Assignment
H2O Science shall not assign this Agreement, but may subcontract work to be performed hereunder. Subject to the foregoing, this Agreement shall inure to the benefit of, and be binding upon, the successors and assigns of the parties. H2O Science will be solely responsible for its subcontractors and agents.

16. Attorneys' Fees
In the event either party shall be successful in any suit for damages for breach of this Agreement, including nonpayment of invoices, or to enforce this Agreement or to enjoin the other party from violating this Agreement, the prevailing party shall be entitled to recover as damages, all reasonable costs incurred, including court costs, reasonable attorney's fees and all other claim-related expenses.

17. Governing Law
This Agreement shall be governed by and interpreted pursuant to the rules of the state where the services are to be performed.

18. Entire Agreement
The terms and conditions set forth herein constitute the entire understanding of the parties relating to the provision of services by H2O Science to CLIENT and shall be incorporated in all Work Orders and authorizations unless otherwise so stated therein. This Agreement may be amended only by written instrument signed by both parties.

19. Severability
Every part, term or provision of this Agreement is severable from others. Notwithstanding any possible future finding by duly constituted authority that a particular part, term or provision is invalid, void or unenforceable, this Agreement has been made with the clear intention that the validity and enforceability of the remaining parts, terms and provisions shall not be affected thereby.

20. Suspension
Client may, at its sole option, with ten (10) day's notice in writing to H2O Science, suspend at any time the performance of all or any portion of the Services in this Agreement. Upon receipt of such notice, H2O Science shall immediately discontinue services, placing of orders, contracts, and rental agreements to the extent that they relate to the suspended services, on the date and to the extent specified in the notice; and unless otherwise specifically stated in the notice, H2O Science shall continue to protect and maintain the work theretofore completed, including those portions on which services have been suspended.

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In the event of such suspension, H2O Science shall be reimbursed for the following costs, reasonably incurred, without duplication of any items, to the extent that such costs result from the suspension of services: (a) standby charges to compensate H2O Science for keeping, to the extent required in the notice, its organization and equipment committed to the work site(s) in a standby status, and for the cost of maintaining and protecting that portion of the services upon which activities have been suspended; and (b) all reasonable costs associated with demobilization and relocation of H2O Science's plant, personnel, subcontractors, and equipment, and costs which H2O Science is or will be legally obligated to pay related to the performance of the services rendered.

If payment of any Invoice by Client is not maintained on a thirty (30) day current basis, H2O Science may, at its discretion, by ten (10) days written notice to CLIENT, suspend performance of services until such payment is restored to a current basis. In the case of such suspension, H2O Science shall be reimbursed for resultant costs as prescribed in Section 2.0 of this Agreement.

21. Termination

CLIENT may, at its discretion, terminate all or part of this Agreement at any time by giving H2O Science ten (10) days written notice of termination. Upon receipt of a termination notice, H2O Science shall immediately discontinue services on the date and to the extent specified in the notice, in the manner specified in Section 20 of this Agreement. H2O Science shall be paid the amount earned by, or reimbursable to it, including fee payments received or otherwise due and all reasonable costs incurred by H2O Science prior to and in connection with termination of the services hereunder, including reasonable costs associated with subcontract termination and to appropriately file and document work completed to the date of termination along with a cancellation fee equal to twenty percent (20%) of the total costs accrued to the date of termination. The cancellation fee does not apply in the event of a default or breach of contract by H2O Science. Following receipt of such payment, H2O Science shall have no further claims against CLIENT with respect thereto.

22. Delay

Any schedule of performance set forth in this Agreement is an estimate only. H2O Science will use its best efforts to achieve completion of the assignment in accordance with CLIENT requests. However, H2O Science shall not assume liability for completion of the Services in reasonable accordance with such schedule.

23. Right of Entry

Unless otherwise agreed CLIENT shall furnish right-of-way to and on the facility for H2O Science to perform the agreed upon services. The availability shall be from 7:00 a.m. to 6:00 p.m. from Monday through Saturday.

24. Samples

All soil, rock and water samples shall be disposed of within thirty (30) days of submittal of our report. Samples submitted to the laboratories will be disposed of by the laboratory.

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IN WITNESS WHEREOF, CLIENT and H2O Science have caused this Agreement to be executed by their respective duly authorized representatives as of the date set forth below.

Executed this _____ day of _____, 19_____.

CLIENT:

_____
By

_____
Print Name

_____
Title

_____
Company

_____
Address

_____
City State Zip Code

H2O Science, Inc.

_____
By

_____
Title

5500 Bolsa Avenue, Suite 105
Huntington Beach, CA 92649

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H2O Science, Inc.

SCHEDULE OF FEES (Dated January 1, 1995)

1. Technical Services

Technical Services are performed by personnel of H2O Science, Inc. (H2O Science) for hours actually spent on project activity, including office, field and travel time, will be charged as follows (in U.S. Dollars):

Professional Personnel		Support Personnel	
Includes geologists, hydrogeologists, hydrologists, civil and other engineers, environmental and other scientists.		Administrative Manager	$ 50
		Project Accountant	$ 50
Principal	$ 110	Word Processor	$ 35
Project Manager/Senior	$ 85	Design Draftsman	$ 50
Project	$ 75	Technical Illustrator	$ 40
Senior Staff	$ 65	Senior Technician	$ 50
Staff	$ 60	Technician	$ 40
Student Assistant	$ 40	Field Assistant	$ 30
		Clerical Assistant	$ 30

Charges for special accounting and financial services beyond the standard project procedure, i.e. detailed financial analysis, budgets, reports and invoice supporting documentation, will be at 1.25 times the individuals hourly rate. If overtime for hourly or non-professional support staff is required, it will be billed at 1.25 times the individuals hourly rate. Fees for special consultation for consulting boards and for services in connection with litigation are charged at 1.5 times the individuals hourly rate, for a four hour minimum. Rates for principal experts are available on request.

2. Subsistence and Expenses

Living and travel expenses incurred by personnel of H2O Science associated with a project will be charged at cost plus fifteen percent (15%). Rates for H2O Science equipment and vehicle usage are provided herein.

3. Materials, Subcontracts, and Equipment Rental

Direct material, equipment and outside services contracted by H2O Science on behalf of a project will be charged at cost plus fifteen percent (15%). These disbursements include, but are not limited to: Subcontractor services such as; drilling, laboratory analyses, asphalt/concrete cutting, surveying, traffic control, construction, special drafting, special computer applications, and subcontracted professional services. Materials and Supplies such as; well construction materials, sampling supplies, construction supplies, aerial photographs, printing and special reproduction, blueprints, tolls and parking, vehicle rental and miscellaneous field supplies. Other expenses such as; special project related fees, insurance, permits, licenses, and bonds. Postage, shipping charges, telephone charges, fax. costs, in-house reproduction and miscellaneous office supplies will be billed as an administrative fee of four percent (4%) of project personnel billings.

4. Billings

Statements normally will be issued every two weeks, monthly, or at the completion of the project, and are payable upon receipt, unless otherwise agreed in writing by H2O Science. Interest, at the rate of one and one half percent (1.5%) per month, not to exceed the maximum rate allowed by law, will be payable on any amounts not paid within thirty (30) days; payment thereafter to be applied first to accrued interest and then to the principal unpaid amount.

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FIELD EQUIPMENT RENTAL RATES

Equipment	Unit	Rate
Ground Water:		
Bailer	day	$ 10
Water Level Indicator	day	$ 15
Interface Probe	day	$ 40
Submersible Pump	day	$ 50
Pneumatic Pump	day	$ 50
Pressure transducer/logger	day	$300
Surge Block	day	$ 15
Air Compressor	day	$ 35
Soil:		
Hand Auger	day	$ 15
Power Auger	day	$ 40
Sample Tubes	each	$ 4
Soil Gas System	day	$ 80
Drive Sampler	day	$ 30
4 oz glass sample jars	each	$ 4
1 litre sample jars	each	$ 7
Air Permeability Test Kitday		$ 60
Construction Equipment:		
Generator	day	$ 40
Steel Trench Plate	day	$ 15
Concrete Mixer	day	$ 35
Grout Mixer	day	$ 60
Asphalt Saw (to 3")	day	$ 35
Diamond Blades	Cost plus 15%	
Hammer Drill	day	$ 25
Misc. Power Tools	day	$ 30
Geophysics:		
EM-16 (surface)	day	$ 90
EM-31 (surface)	day	$160
EM-34 (surface)	day	$220
EM-38 (surface)	day	$ 75
EM-39 (borehole)	day	$450
Radar (surface)	day	$400
ABEM Resistivity (surface)	day	$200
GSM-19 Magn.(surface)	day	$240
Seismic (surface)	day	$200
Seismic (borehole)	day	$275
EM & Nat. Gamma (borehole)	day	$520
Gamma Emitting (borehole)	Cost plus 15%	
Neutron-Density (borehole)	Cost plus 15%	
VLF (surface)	day	$50

Equipment	Unit	Rate
Analytical:		
Draeger Gas Detector Kit	day	$ 10
Draeger Tubes	Cost plus 15%	
D.O Meter	day	$ 15
pH Meter	day	$ 15
Temp./Conductivity Meter	day	$ 15
Hnu/Photovac PID	day	$125
Foxboro OVA PID	day	$150
Filters	Cost plus 15%	
Gas Combustion Meter	day	$ 65
Headspace Apparatus	day	$ 40
Air Sample Pump	day	$ 20
Air Temperature Meter	day	$ 10
Air Velocity Meter	day	$ 50
Vehicles:		
Small Pick-up	day	$ 60
Large Pick-up	day	$ 70
Flat Bed Truck	day	$ 85
Mileage	mile	$0.30
Office Equipment:		
Computer	hour	$ 15
CAD System	hour	$ 25
Still Camera	day	$ 20
Video Camera	day	$ 50
Television/VCR	day	$ 20
Slide Projector	day	$ 20
Overhead Projector	day	$ 20
Laptop/Notebook (field use)	day	$ 40
Stock Supplies:		
Well Construction Materials	Cost plus 15%	
HazMaterials Safety Kit	day	$ 25
Expend. Supplies (Level D)	day	$ 20
Expendable Supplies (Level C) day		$ 25
Respirator Cartridges	Cost plus 15%	
DOT 55 gallon drums	each	$ 40

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HARTCROWSER

Earth and Environmental Technologies

Hart Crowser, Inc
One World Trade Center, Suite 2300
Long Beach, California 90831-2300
FAX 310 495 6361
310 495 6360

November 1, 1994

Mr. Robert K. Butler
Corporate Environmental Manager
PACCAR, Inc.
P. O. Box 1518
Bellevue, Washington 98809

Re: Preliminary Environmental Site Assessment
Trico Industries Facility (former)
1206 W. 196th Street
Torrance, California
Proposal No. 95-47-5008

Dear Mr. Butler:

Hart Crowser, Inc. is pleased to provide PACCAR with this proposal to conduct a Preliminary Environmental Site Assessment (PSA) for the above-referenced property. The purpose of the proposed work is to provide environmental information on current property conditions and past practices which may have bearing on legal or financial liabilities associated with the subject property.

PROJECT UNDERSTANDING

Hart Crowser has based our Scope of Work and proposed cost on information presented in your Request for Proposal (RFP) dated October 24, 1994, and subsequent discussions with the PACCAR staff. The subject property is located in Torrance, California. We understand the above-referenced site consists of two parcels of property, Parcel 1 and 2, and that this RFP only represents Parcel 2. Parcel 2 is approximately 100,000 square feet (sf) in area and is developed with three buildings, Building A, B, and C, as follows:

	Bldg	Size	Construction	Use
▸	A	12,400 sf	Concrete Block	Pump manufacturing
▸	B	4,200 sf	Metal Butler Bldg.	Warehouse
▸	C	13,400 sf	Concrete Block	Warehouse/Shipping

All three buildings are single story and of different heights based on the use. The buildings are reported to have been constructed in the 1950s. The site was used for the manufacture of oil pump equipment. Components of oil, hydraulic fluids, solvents, and paints were used in the manufacturing process and stored on-site.

The site (Parcel 2) is nearly 100 percent paved with asphaltic concrete or concrete slab-on-grade with virtually no exposed soil. We understand there are no underground storage tanks associated with Parcel 2. Two groundwater monitoring wells exist on Parcel 2 but are no longer being monitored. Three additional monitoring wells are also located on the northeast side of the site, adjacent to the railroad tracks. These three wells are active and being monitored for the Del Amo Superfund Site located east of Parcel 2. Relevant environmental data on the wells is not known but we understand the data will be supplied to the successful RFP contractor. This proposal does not include a review of the data pertaining to the Superfund Site.

SCOPE OF WORK

Our Scope of Work consists of the following five tasks:

- *Task 1 - Site Historical Characterization*
- *Task 2 - Regulatory List and Records Review*
- *Task 3 - Site Reconnaissance and Interviews*
- *Task 4 - Analysis of Building Material Samples for Asbestos Content*
- *Task 5 - Data Analysis and Report Preparation*

Task 1 - Site Historical Characterization

We will investigate the property history to evaluate potential sources of contamination due to past land use and operational practices. We will attempt to identify the nature, sequence, and dates of activities at the facility. In addition, we will identify adjacent and nearby property uses that may have adversely impacted the subject property.

We will base our professional opinions and recommendations on information obtained from the below listed sources, when these information sources are readily available, and as concluded by us to be appropriate based on the observed conditions at the site.

- Historical aerial photographs
- Sanborn Fire Insurance Maps
- Title Search of assessor records, if provided for our review (or, if requested, we can arrange to obtain a Title Search for the property for an additional fee.)

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Sources continued:

- USGS topographic maps
- Building permits
- Interviews with persons knowledgeable about the site
- Old land use maps and business directories
- Information provided to us by the property owners or clients (e.g., previous environmental studies)

Task 2 - Regulatory Lists and Records Review

Regulatory Lists. We will check to see if the subject property or adjacent properties are identified on the following agency listings:

- U.S. Environmental Protection Agency's (USEPA) Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS)
- USEPA's National Priority List (NPL)
- USEPA's Superfund Liens Database (LIENS)
- California EPA's (CAL-EPA) Border Zone Properties listing deed restrictions (BZP)
- CAL-EPA's Hazardous Waste & Substances Site List (CORTESE)
- CAL-EPA's CAL-SITES Annual Work Plan (AWP)
- CAL-EPA's CAL-SITES Abandoned Sites Program Information System (CAL-SITES/ASPIS)
- CAL-EPA's Hazardous Waste Information System (HWIS)
- California Integrated Waste Management Board's Solid Waste Information System (SWIS)
- California Regional Water Quality Control Board's (RWQCB) Leaking Underground Storage Tank (LUST) List
- California RWQCB's List of Registered Underground Storage Tanks

The purpose of this task is to identify reported releases (or potential releases) of chemicals at the subject property and nearby adjacent properties. In some cases, the agency list review will identify hazardous material handling activities related to operations on, or adjacent to, the subject property that may have impacted the property.

Our regulatory list review may identify areas that warrant additional agency information. Regulatory files and records may need to be reviewed to collect this information. For example, if the list review indicates that a significant environmental release has occurred on an adjacent property, we may need to review the files of the lead agency to assess the impact on the subject property.

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Regulatory Files/Records. When necessary, we will make appointments with the appropriate regulatory agencies to review files and records relating to the subject property. Agencies typically contacted are as follows:

- Regional Office of the USEPA
- California Department of Toxic Substances Control (DTSC)
- Regional Water Quality Control Board (RWQCB)
- California Division of Oil and Gas (DOG)
- County or City Environmental Health Department
- County or City Public Works Department
- City Building Department
- City Fire Department

Typical agency file information to be reviewed includes the following:

- Site investigation reports of previous environmental studies
- Hydrogeologic data such as groundwater depth and gradient
- Above ground and underground fuel storage tank registrations
- Reports of spills, leaks, or other accidental events which could affect the environment
- Citizen complaints or inquiries

This task does not involve a review of the Superfund Site data. Review of this data can be included if required by PACCAR. The cost will be included on a contract change form.

Task 3 - Site Reconnaissance and Interviews

We will visit the subject property and perform an inspection of accessible areas. The purpose of this reconnaissance is to identify visual signs of potential soil, surface water, and groundwater environmental impact arising from current and/or past operating practices. Particular attention will be paid to those items of concern identified during the historical characterization and regulatory review. The observed presence of drums, spills, and oil sheens, as well as other concerns, will be noted. Due to the age of the buildings (1950s), there is a probability that asbestos-containing building materials (ACBMs) may be present. Therefore, this PSA will include sampling and laboratory analysis of building materials for asbestos content. This PSA does not include sampling and laboratory analysis of paint for lead content, soil, groundwater, transformer fluids, or other materials of environmental concern.

Site reconnaissance activities include:

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Interviews. We will interview, as appropriate, persons who may have knowledge of current or past activities in the vicinity of the site that may have impacted the environmental condition of the site. We are interested in information related to past and present waste disposal practices, hazardous materials management practices, known spills, the presence of underground storage tanks (USTs), and other environmental concerns.

Underground Storage Tanks. Our site reconnaissance will include visually checking for evidence of USTs, including pump islands, fill ports, and vapor vent pipes. Since USTs are subsurface structures that may not be readily identifiable from the surface, we do not guarantee that our site reconnaissance will identify all USTs on-site. Our regulatory list and file review will help us assess the potential for USTs located on the property.

Asbestos. Our site reconnaissance will include obtaining samples of building materials for analysis of asbestos content, see Task 4 below.

Paint. Our site reconnaissance will include visually checking for deteriorated painted surfaces on building materials. At these locations we will screen the painted surface (using LeadCheck™ swabs) for the presence of lead-based paint (up to 10 total tests). We will not perform destructive testing or identify latent conditions behind intact finished surfaces. If the screen test indicates the presence of lead, we will notify you and provide a recommendation in the project report to conduct a follow-on sampling and analysis program prior to demolition or remodel. The test is intended only as a screen, and the presence (or absence) of lead cannot be verified without laboratory chemical analysis of samples.

Polychlorinated Biphenyls (PCB). If during our site reconnaissance we observe electrical equipment, we will contact the local utilities office by telephone to inquire if on-site pole-mounted or pad-mounted transformers or electrical switching equipment currently or previously contained PCBs. If available, other data such as records of leaks, spills, fluid replacement, and fires will be requested and evaluated as to their potential impact to the subject properties.

Surrounding Area. We will visually observe the outdoor areas of immediately adjacent properties to identify obvious potential environmental concerns that might be expected to affect the subject property. We will conduct a drive-by reconnaissance in the immediate vicinity to assess land use in the region of the property. However, we will not trespass or enter adjacent property structures and because of this restriction, our opinion of adjacent properties shall be limited to the referenced regulatory lists, and based only on our ability to observe the identified properties on the day of the site reconnaissance.

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Task 4 - Analysis of Building Material Samples for Asbestos Content

We will visually check for the presence of damaged or deteriorated building materials potentially containing asbestos, which are exposed on the outer surfaces of the building interior walls, ceilings, and exposed heating pipelines. We will not perform destructive testing or identify latent conditions behind finished surfaces. If the presence of damaged materials likely to contain asbestos are observed during the field visits, we will collect up to 16 samples. We expect to collect up to eight samples of wall sheetrock, up to four samples of acoustical ceiling panels, and up to four samples of vinyl floor material from within the subject buildings for bulk content analysis to verify the presence of asbestos in exposed damaged materials.

We will assign a unique sample number to each building material sample and log each sample on chain of custody forms for delivery to the analytical laboratory. We will submit the samples to a State of California certified laboratory for analysis of asbestos content by Polar Light Microscopy.

If asbestos content is confirmed (concentration above 1 percent) in building materials, we may propose a more comprehensive site survey to evaluate asbestos concerns for the properties. The results from our initial asbestos bulk sample testing will not represent a California Occupational Safety and Health Administration (Cal OSHA) asbestos survey. Our limited asbestos testing is intended only to screen for the presence of exposed asbestos-containing materials which are in a deteriorated condition.

Task 5 - Data Analysis and Report Preparation

The information and data gathered during our PSA will be analyzed with respect to indications of existing on-site environmental impact. Our collected information and observations, site data, conclusions and recommendations will be documented in a letter report. The letter report will include a description of our findings and an interpretation of findings generated from the historical characterization, regulatory agency list and file review and the site reconnaissance.

Recommendations for additional work to clarify outstanding uncertainties such as additional sampling and analysis, or the need to remediate indicated contamination, will be detailed as appropriate.

The report will include a Vicinity Map illustrating the general location of the subject property and a Site Plan. The Site Plan will identify potential areas of concern, if any.

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An associate environmental specialist and quality assurance technical editor at Hart Crowser will both review the report to ensure that it is clearly communicated and meets Hart Crowser's standards to fulfill the objective of the project.

PROJECT SCHEDULE

We are prepared to begin the work outlined in this proposal immediately upon receipt of PACCAR's written authorization to proceed. We estimate that the above Scope of Work will be completed within three to four weeks upon receipt of the written authorization.

PROJECT COST

We will provide the indicated Scope of Work for a lump sum total of **$4,675**. In the event that project requirements change or unforeseen conditions are encountered which require additional work above what has been presented, we will notify you and obtain your approval for the added work before proceeding. This cost estimate includes sampling for ACBMs. If the asbestos sampling is excluded, the project cost is modified to a lump sum total of **$4,245**.

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TERMS AND CONDITIONS

The Scope of Work outlined previously will be billed on a lump sum basis at the end of each month as a percent completed. This work can be performed under the Terms and Conditions of our existing contract between PACCAR, Inc. and Hart Crowser, Inc., dated December 20, 1993. If this proposal meets with your approval, please prepare a written purchase order referencing or attaching this proposal. We will begin work upon receipt of the purchase order. Any changes to our agreement must be in writing and mutually agreed. We intend to use the attached example Contract Change form to effectively implement and document any changes to this project.

Our services will be performed in accordance with generally accepted professional practices, related to the nature of the work accomplished, in the same or similar localities, at the time the services are performed. No other warranty, express or implied, is made. We appreciate the opportunity to submit this proposal and look forward to your favorable consideration. If you have any questions or desire to discuss this proposal with us, please call us at (310) 495-6360.

Sincerely,

HART CROWSER, INC.

David Darrow
Environmental Scientist

Al Melendrez, P.E.
Senior Project Engineer

Attachments: Contract Change form

<G \Data\WP51\Props\95475008\PACCAR pro>

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Attachments

HARTCROWSER

Contract Change

CHANGE NO. _____ DATE _____

CLIENT _____

JOB NO _____

PROJECT _____

DESCRIPTION OF CHANGE	COST

EXAMPLE

This change amends contract between Hart Crowser and Client dated _____ Except as amended above, all terms and conditions of contract apply to this Contract Change

CLIENT BY _____

PRINTED NAME _____

HART CROWSER, INC. BY _____

PRINTED NAME _____

HARTCROWSER

Earth and Environmental Technologies

Corporate Headquarters
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Fax 206.328.5581
Tel 206.324.9530

1201 Jadwin Avenue, Suite 204
Richland, Washington 99352-3431
Fax 509.946.4203
Tel 509.946 4344

2550 Denali Street, Suite 705
Anchorage, Alaska 99503-2737
Fax 907.276.2104
Tel 907.276.7475

Five Centerpoint Drive, Suite 240
Lake Oswego, Oregon 97035-8652
Fax 503.620.6918
Tel 503.620.7284

12 South King Street, Suite 200
Honolulu, Hawaii 96813-4328
Fax 808.523.8876
Tel 808.521.5955

353 Sacramento Street, Suite 1140
San Francisco, California 94111-3624
Fax 415 391.2216
Tel 415.391.1885

One World Trade Center, Suite 2300
Long Beach, California 90831-2300
Fax 310.495.6361
Tel 310.495.6360

501 West Broadway, Suite 800
San Diego, California 92101-3546
Fax 619.231.9754
Tel 619.230.7252

Hart Crowser de México, S.A. de C.V.
Calle Camargo No. 32
Col. Hipódromo Condesa
C.P. 06170, México, D.F.
Fax 525.277.11.55
Tel 525.277.11.55

Pincock, Allen & Holt
A Division of Hart Crowser, Inc.
274 Union Boulevard, Suite 200
Lakewood, Colorado 80228-1835
Fax 303.987.8907
Tel 303.986.6950

Printed on recycled stock with 10% post-consumer waste using vegetable-based inks.

TENANT:	~~Mighty Enterprises, Inc.~~ Dynateck of America
LOCAL ADDRESS:	1206 West 196th Street Torrance, CA
CONTACT:	
OTHER ADDRESS:	19706 South Normandie Avenue Torrance, CA 90502
PHONE:	310 516-7478 FAX 310 516-0368
EMERGENCY:	
SQUARE FEET:	4,000
LEASE TERM:	9/15/93 - Month to Month Amendment to Lease: Sept. 15, 1995
BASE RENT:	$5,000/mo - Rents entire facility
BASE YEAR:	1993
ESCALATION:	
PARKING:	
STORAGE:	
SECURITY DEP:	$5,000

SPECIAL INFO:

Landlord - Pays Property Taxes, Foundation and Structural Repairs
Tenant - Pays Utilities

CERT. OF INSURANCE Current

Stores soft goods.

DRAFT

OBSERVATIONS
TRICO PROPERTIES
TORRANCE and GARDENA

May 24, 1996

On May 22, 1996, I visited the subject properties to audit the activities of the companies leasing the sites. I was accompanied by Jim Dunavant of PACCAR and John Stellar of Hart Crowser. Following are notes on my observations.

GARDENA * * *

TORRANCE

We walked through the property which is currently leased by Mighty Enterprises. Most of our buildings are being used for storage. The following problems were noted:

1. A car is being stored on the bermed area just outside the former location of the paint dip tank. This is where Trico stored its paints.

2. The area east of the warehouse building nearest the railroad tracks is being used for outside storage. It is messy for the whole length of the building. There is paper and packaging scattered all over the place.

3. The area adjacent to where Trico operated its welding shop is now being used for painting large parts. Paints are being stored in cabinets in the building as well as in buckets on the floor. This operation is not really taking place in a paint booth - just out in the open.

4. There is a sewing operation in the old machine shop area.

SUMMARY

It appears to me that the occupants at either facility are doing a good job of keeping the respective facilities in top shape. At Gardena, there is a lot of trash and derelict equipment and the buildings do not appear to have been well maintained. At Torrance, the occupant is storing and using chemicals we did not know about and has allowed messes to accumulate.

cgardena

Larry

P 024 607 399

PACCAR Inc

Certified Mail
Return Receipt Requested

August 5, 1996

Mr. Peter Tsai
Dynateck America, Inc.
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrance, CA 90502

Re: 1206 West 196th, Torrance, CA
Lease Dated September 15, 1993, As Amended

Gentlemen:

This re-transmits my enclosed letter of June 7, 1996, to which we have received no response.

I queried attorney Gurewitz whether he had received any instructions from you to become involved. He recently advised that, although he had notified you that he was aware of our letter, he has received no request from you to become involved in this matter.

We look forward to your response to our June 7 letter by August 15.

Very truly yours,

Phillip E. Gladfelter
Corporate Real Property Manager

PEG:ldr
PEG96209 DOC

Enclosure

cc: David Gurewitz, Esq., Gurewitz & Lieb
(10780 Santa Monica Blvd, Suite 350, Los Angeles, CA 90025)
Roger Pettitt, Esq., Brant & Pettitt
(626 Wilshire Blvd, #410, Los Angeles, CA 90017)
R. E. Bangert, II
J. Dunavant (3040 E. Slauson Ave, Huntington Park, CA 90253)
L. Sims
R. A. Hoel

P.O. Box 1518 Bellevue Washington 98009 Telephone (206) 455-7400
PACCAR Building 777-106th Avenue N.E. Bellevue Washington 98004

PACCAR Inc

June 7, 1996

Certified Mail
Return Receipt Requested

Mr. Peter Tsai
Dynateck America, Inc.
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrance, CA 90502

Re: 1206 West 196th, Torrance, CA
Lease Dated September 15, 1993,
As Amended

Gentlemen:

On May 24, 1996, representatives of Trico inspected the properties leased by Trico to others in the Los Angeles area, including your above property. A copy of the notes pertinent to the inspection of your leasehold at Torrance is attached. As you are aware, Trico is a wholly owned subsidiary of PACCAR Inc.

Among the conditions noted in that inspection are several matters which we regard as very troublesome under our lease. We will discuss them next.

Notwithstanding the limited purposes for which the lease was granted in Section 3.1 ("storage of shoes, umbrellas and other cloth material goods, and for no other purpose") the Tenant is conducting a painting operation, with associated materials, and a sewing operation on the premises.

The painting operation raises questions under Sections 3.3 and 3.4 of the Lease (dealing with hazardous substances), including the requirement that Tenant give notice immediately to the Landlord of use thereof on the premises (these would clearly include paint and paint solvents).

P O Box 1518 Bellevue, Washington 98009 Telephone (206) 455-7400
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004

Second, the outside storage activities east of warehouse building are at least messy, and may constitute a nuisance or increase risks of fire. Under Section 4(a) of the Lease, the Tenant is required to keep the premises and every part thereof "in good order, condition . . ." including "all landscaping, driveways and fences".

Lastly, the storage of an auto on the property, depending on the circumstances, may also exceed the permitted use under the Lease.

In connection with any Tenant default under the Lease, the Lessor may, among other things, recover its attorneys fees. When a default occurs, the Landlord can pursue its various remedies contained in the Lease, including curing the Tenant's default at the Tenant's expense (Section 4(b)), including by application of the security deposit (Section 2.2) which the Tenant is then obligated to restore to its original amount.

At the moment, without prejudice to any of Trico's remedies, Trico has concern that the following curative action be taken promptly.

1. Tenant cleanup the outside storage area between the warehouse building and east property line fence so that outside storage is properly contained, and no debris or loose materials are lying about.

2. Tenant at its expense promptly furnish to Trico an environmental inspection report concerning Tenant's painting activities, conducted by a qualified independent consultant, as contemplated by Section 4(b), and carry out any corrective activity required by such report and by Trico.

3. Tenant cease use of the premises for painting and sewing operations, or negotiate an amendment acceptable to Trico to Section 3.1 of the Lease, permitting such activities.

We ask that you direct any correspondence regarding this matter to the undersigned, with copies to the individuals shown as copy recipients of this letter.

We look forward to Tenant's prompt attention to these matters.

Very truly yours,

Phillip E. Gladfelter
Corporate Real Property Manager

PEG:ldr
PEG96159.DOC

Enclosure - Trico Premises Inspection Report, May 22, 1996

Copies to:

Roger Pettitt, Esq., Brant & Pettitt
(626 Wilshire Blvd, #410, Los Angeles, CA 90017)
R. E. Bangert II/L. Sims, PACCAR Inc (P.O. Box 1518, Bellevue, WA 98009)
R. Litschi, Trico Industries, Inc.(2503 Hunter Rd, San Marcos, TX 78666)
J. Dunavant, Trico Industries, Inc. (3040 E. Slauson Ave, Huntington Park, CA 90253)
R. A. Hoel, PACCAR Inc (P.O. Box 1518, Bellevue, WA 98009)

DRAFT

OBSERVATIONS
TRICO PROPERTIES
TORRANCE and GARDENA

May 24, 1996

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cgardena

Gary

FAX COVER PAGE

Date: Thursday, August 22, 1996

AUG 2 2 1996

To: **Phillip E. Gladfelter**

Fax Number: (206) 455-7421

From: **John Carver**
The Seeley Company

Fax: (310) 787-6869

Voice: (310) 787-1007 x209

Pages: (including this cover sheet):____2_

Re:

Please review the attached response from Peter Tsai to your previous letters regarding Trico-Torrance site. Let me know if there is anything I can do.

John

Bissonette
on vacation
till 9/3

CT:fax33749.doc

8/22/96

cc: D. Bissonette
L. Sims
A. Hoel

Can you comment to me on risks to Trico (lessor) of fabric sewing operation of Tenant (OSHA, etc). Please respond by Tuesday, 8/27

Phil

Capital
Commercial Real Estate
New America Network

August 20, 1996

19300 South Hamilton Avenue • Suite 100
Post Office Box 2883
Torrance, California 90509-2883
(310) 532-9080 • FAX (310) 327-6259

Mr. Phillip Gladfelter
c/o John Carver
The Seeley Company
2050 W. 190th Street, Suite 101
Torrance, California 90564

RE: TRICO RETAINED PROPRTY- NORMANDIE AVENUE, TORRANCE, CA

Dear Mr. Gladfelter:

Peter Tsai and I have discussed the letters dated August 5 and June 7, 1996 for the above mentioned property. Furthermore, I personally inspected this site with one of Peter's assistants, Clare, in order to submit Peter's response to the (3) three issues contained in those letters.

1) The painting operation has been removed from the leased premises. Furthermore, it was indicated to me that the painting was done on a very limited basis.
2) All outside storage debris and the automobile have been removed from the leased premises.
3) In regards to the sewing operation, it is understood that the lease agreement limited Peter to specific uses. However, the sewing of umbrellas complies with the present zoning use and does not create a hazardous condition. Furthermore, Peter has invested his own monies to install electrical into the small 4,000 square foot building where the sewing is being done.

X At this time, Peter would like to know what kind of problems he is creating by having a sewing operation on the leased site.

Please call me to discuss these issues.

Sincerely,

CAPITAL COMMERCIAL REAL ESTATE SERVICES, INC.

Eric Herold
Vice President

cc: Peter Tsai

FAX COVER PAGE

Date: Thursday, August 22, 1996

To: **Phillip E. Gladfelter**

Fax Number: (206) 455-7421

From: **John Carver**
The Seeley Company

Fax: (310) 787-6869

Voice: (310) 787-1007 x209

Pages: (including this cover sheet):____2_

Re:

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Capital
Commercial Real Estate
New America Network

19300 South Hamilton Avenue • Suite 100
Post Office Box 2883
Torrance, California 90509-2883
(310) 532-9080 • FAX (310) 327-6259

August 20, 1996

Mr. Phillip Gladfelter
c/o John Carver
The Seeley Company
2050 W. 190th Street, Suite 101
Torrance, California 90564

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Sincerely,

CAPITAL COMMERCIAL REAL ESTATE SERVICES, INC.

Eric Herold
Vice President

cc: Peter Tsai

PACCAR Inc

October 22, 1996

Mr. Peter Tsai
Dynateck America Inc.
Mighty Enterprises Inc.
19706 So. Normandie Avenue
Torrance, CA 90502

Re: 1206 West 196th
Torrance, CA
Lease Dated September 15, 1993, as Amended

Gentlemen:

Reference is made to my letter to you of June 7, 1996, and Eric Herold's letter in response dated August 20, 1996. I further enclose a Trico Inspection Report of the premises dated October 3, 1996.

The Lease, Section 3.1, currently provides "the Tenant shall use the premise solely and only for the purpose of storage of shoes, umbrellas and other cloth material goods, and for no other purpose without the prior written consent of Landlord." Therefore, the Lease does not currently permit sewing or machine tool assembly and storage as now being conducted on the leased premises.

There are risks associated with these activities and the additional workers present on the premises, which are (or are not) apparent or easily definable. These might include OSHA and California OSHA state requirements, ADA requirements, increased fire risk, possible use of additional hazardous substances, and the like.

In order for Trico to consent to you continuing these activities as Tenant on the premises, we require that you signed the attached Amendment No. 2 to Lease protecting Trico against any consequences of these additional activities.

Please execute this Amendment in the spaces indicated and return all three copies to me. We will then have Trico execute one copy for each Tenant obligated on the Lease and return a fully executed copy to you.

[illegible] Telephone (206) 455-7400
[illegible] Bellevue, Washington 98004

If you have questions regarding Trico's requirements, please contact me.

Very truly yours,

Philip E. Gladfelter
Corporate Real Property Manager

PEG:lp
J:\11PEG\WD6\1018PEG1.DOC

Enclosures

cc: R. E. Bangert, II
J. Dunavant (3040 East Slauson Ave., Huntington Park, CA 90253)
L. L. Sims
R. A. Hoel
Roger Pettitt, Esq. (626 Wilshire Blvd. #410, Los Angeles, CA 90017)
David Gurewitz, Esq. (10780 Santa Monica Blvd. #350, Los Angeles, CA 90025)
Eric Herold, Capital Commercial Real Estate Services (19300 S. Hamilton Ave., #110, P.O. Box 2883, Torrance, CA 90509-2883)
John Carver, Seeley Company (2050 W. 190th St., #101, Torrance, CA 90504

October 21, 1995

AMENDMENT NO. 2 TO LEASE

This is Amendment No. 2 ("Amendment") to that certain Lease dated as of September 15, 1993 (as previously amended, the "Lease") by and between Trico Industries, Inc. a California Corporation ("Landlord") and Dynateck America, Inc., and Mighty Enterprises, Inc., each a California Corporation (collectively "Tenant").

Landlord and Tenant have agreed to amend the Lease effective October 21, 1995-1996, in consideration of the agreements in this amendment, as herein said forth.

Landlord is willing to consent to certain additional permitted uses of the Premises on the following terms and conditions, to which Tenant agrees, but without limitation of any other provision of the Lease.

1. Subject to all other provisions of the Lease, Tenant shall have the right to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale, on the premises as additional permitted uses.

2. Tenant agrees at its expense to comply with all laws whatsoever applicable to such additional permitted uses of the Premises, and whether such laws require action by the owner or Tenant of the property.

As amended hereby the Lease is ratified and confirmed and remains in full force and effect.

Dynateck America, Inc.

Trico Industries, Inc.

Mighty Enterprises, Inc.

19706 So. Normandie Avenue
Torrance, CA 90502

Dan Lewis / LL Sin

PACCAR Inc

As of October 22,1996

Mr. Peter Tsai
Dynateck America Inc.
Mighty Enterprises Inc.
19706 So. Normandie Avenue
Torrance, CA 90502

Re: 1206 West 196th
Torrance, CA
Lease Dated September 15, 1993, as Amended

Gentlemen:

This letter replaces and reconfirms your lost copy of its original version. Since that letter was written to you under date of October 22,1996, Trico Industries has transferred its ownership of the leased premises to its parent, PACCAR Inc.

Reference is made to my letter to you of June 7, 1996, and Eric Herold's letter in response dated August 20, 1996. I further enclose a Trico Inspection Report of the premises dated October 3, 1996.

The Lease, Section 3.1, currently provides "the Tenant shall use the premise solely and only for the purpose of storage of shoes, umbrellas and other cloth material goods, and for no other purpose without the prior written consent of Landlord." Therefore, the Lease does not currently permit sewing or machine tool assembly and storage as now being conducted on the leased premises.

There are risks associated with these activities and the additional workers present on the premises, which are (or are not) apparent or easily definable. These might include OSHA and California OSHA state requirements, ADA requirements, increased fire risk, possible use of additional hazardous substances, and the like.

In order for Trico and PACCAR to consent to you continuing these activities as Tenant on the premises, we require that you signed the attached Amendment No. 2 to Lease protecting Trico and PACCAR against any consequences of these additional activitiee.Please execute this Amendment in the spaces indicated and return all three copies to me. We will then have PACCAR execute

P O Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N E. Bellevue, Washington 98004

one copy for each Tenant obligated on the Lease and return a fully executed copy to you.

If you have questions regarding PACCAR's requirements, please contact me.

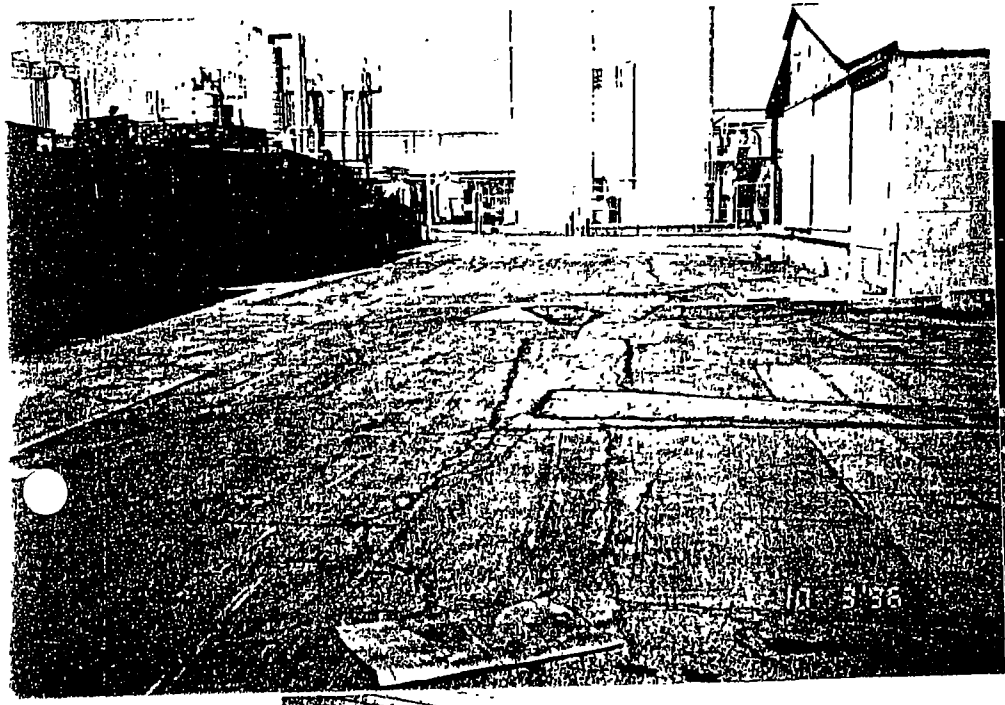
Very truly yours,

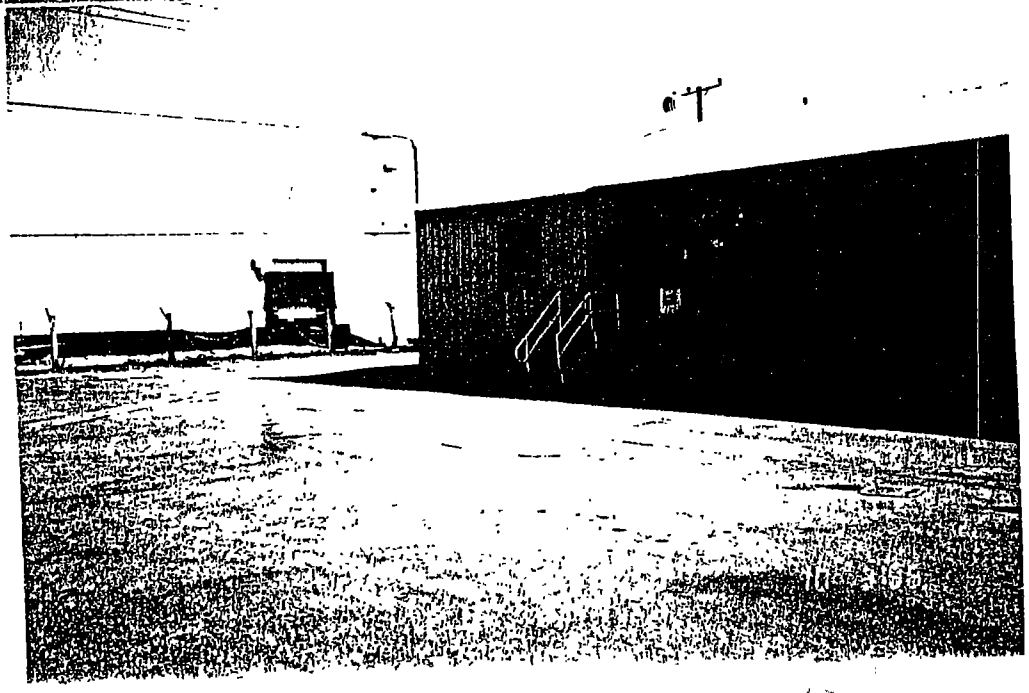
Philip E. Gladfelter
Corporate Real Property Manager

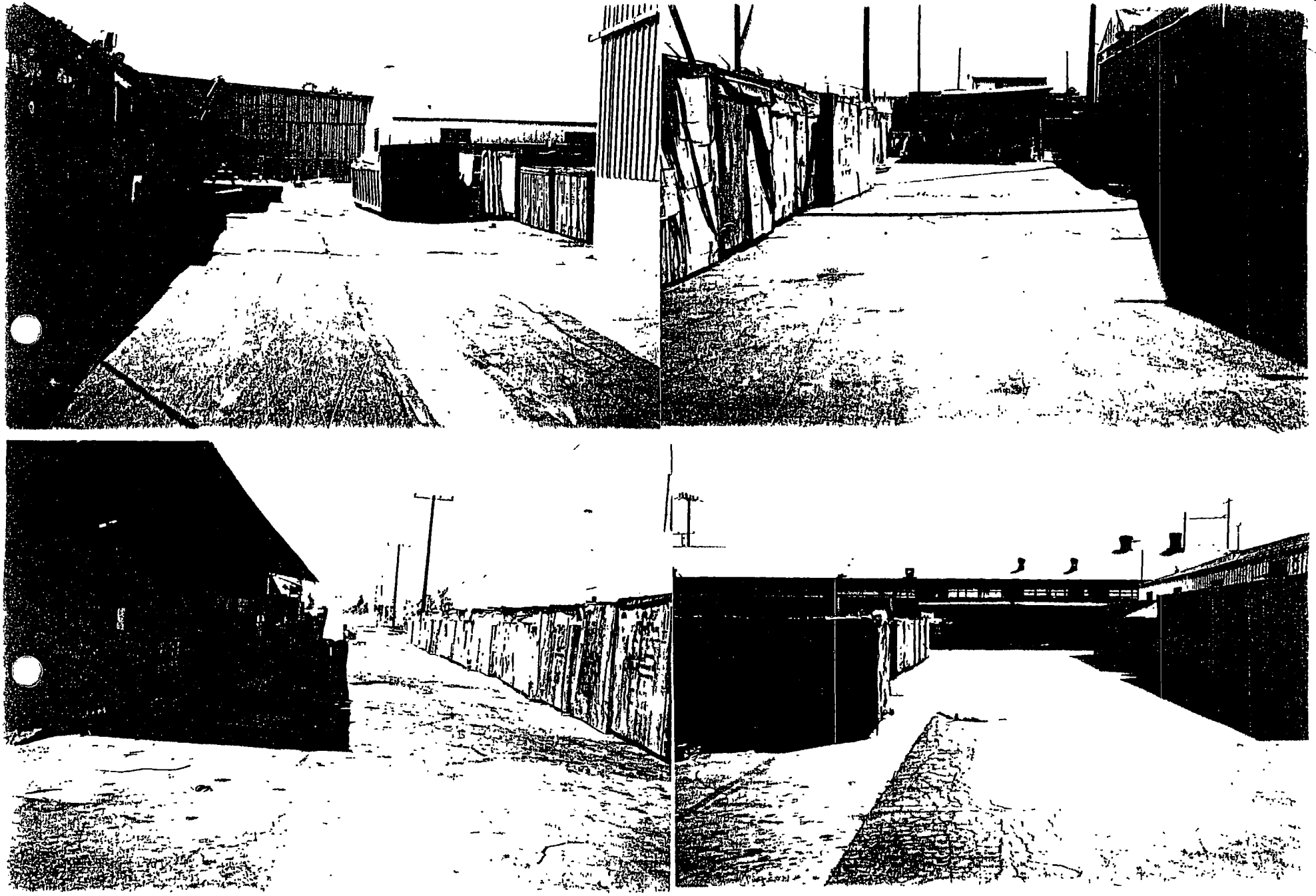
PEG:lp
J:\11PEG\WD6\1018PEG1 DOC

Enclosures

cc: D. Lewis
L. L. Sims
R. McQuade
Roger Pettitt, Esq. (626 Wilshire Blvd. #410, Los Angeles, CA 90017)
David Gurewitz, Esq. (10780 Santa Monica Blvd. #350, Los Angeles. CA 90025)
Eric Herold, Capital Commercial Real Estate Services (19300 S. Hamiiton Ave., #110, P O. Box 2883, Torrance, CA 90509-2883)
John Carver, Seeley Company (2050 W. 190th St., #101, Torrance, CA 90504







PACCAR Inc

As of October 22,1996

Mr. Peter Tsai
Dynateck America Inc.
Mighty Enterprises Inc.
19706 So. Normandie Avenue
Torrance, CA 90502

Re: 1206 West 196th
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P O Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N E Bellevue, Washington 98004

one copy for each Tenant obligated on the Lease and return a fully executed copy to you.

If you have questions regarding PACCAR's requirements, please contact me

Very truly yours,

Philip E. Gladfelter
Corporate Real Property Manager

PEG:lp
J:\11PEG\WD6\1018PEG1.DOC

Enclosures

cc: D. Lewis
L. L. Sims
R. McQuade
Roger Pettitt, Esq. (626 Wilshire Blvd. #410, Los Angeles, CA 90017)
David Gurewitz, Esq. (10780 Santa Monica Blvd #350, Los Angeles, CA 90025)
Eric Herold, Capital Commercial Real Estate Services (19300 S. Hamilton Ave., #110, P O. Box 2883, Torrance, CA 90509-2883)
John Carver, Seeley Company (2050 W 190th St., #101, Torrance, CA 90504

PACCAR Inc

October 22, 1996

Mr. Peter Tsai
Dynateck America Inc.
Mighty Enterprises Inc.
19706 So. Normandie Avenue
Torrance, CA 90502

Re: 1206 West 196th
Torrance, CA
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In order for Trico to consent to you continuing these activities as Tenant on the premises, we require that you signed the attached Amendment No. 2 to Lease protecting Trico against any consequences of these additional activities.

Please execute this Amendment in the spaces indicated and return all three copies to me. We will then have Trico execute one copy for each Tenant obligated on the Lease and return a fully executed copy to you.

[illegible] 98009 Telephone (206) 455-7400
[illegible] Bellevue Washington 98004

If you have questions regarding Trico's requirements, please contact me.

Very truly yours,

Philip E. Gladfelter
Corporate Real Property Manager

PEG:lp
J:\11PEG\WD6\1018PEG1.DOC

Enclosures

cc: R. E. Bangert, II
J. Dunavant (3040 East Slauson Ave., Huntington Park, CA 90253)
L. L. Sims
R. A. Hoel
Roger Pettitt, Esq. (626 Wilshire Blvd. #410, Los Angeles, CA 90017)
David Gurewitz, Esq. (10780 Santa Monica Blvd. #350, Los Angeles, CA 90025)
Eric Herold, Capital Commercial Real Estate Services (19300 S. Hamilton Ave., #110, P.O. Box 2883, Torrance, CA 90509-2883)
John Carver, Seeley Company (2050 W. 190th St., #101, Torrance, CA 90504

October 21, 1995

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As amended hereby the Lease is ratified and confirmed and remains in full force and effect.

Dynateck America, Inc.	Trico Industries, Inc.

Mighty Enterprises, Inc.

19706 So. Normandie Avenue
Torrance, CA 90502

December 10, 1997

PACCAR Inc

Mighty Enterprises, Inc.
19706 South Normandie Avenue
Torrance, CA 90502

Dear Sirs:

The sale of Trico Industries was completed on December 2, 1997.

PACCAR Inc is now the Landlord and administering the lease for property at 1206 West 196th Street, Torrance, CA. According to Lease Amendment 1, Item 7, your monthly rental checks have been mailed to Trico Industires, Inc., 2503 Hunter Road, San Marcos, Texas 78666.

In the future, please make yours checks payable to PACCAR Inc in the amount of $5,000 and send them to:

PACCAR Inc.
P.O..Box 1518
Bellevue, WA 98009

Also, please send a current Certificate of Insurance naming PACCAR Inc (Landlord) as the additional insured per the lease dated September 25, 1993. (Copy of Item 8, Tenant's Insurance of said lease attached.)

If you have any questions regarding the above changes, please call me at (425) 468-7519.

Very truly yours,

H. Dennis Sather
Manager, Corporate Services

HDS:hlb

cc: Dynateck of America

P.O. Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004

8. Tenant's Insurance.

(a) Tenant shall carry a policy or policies of insurance as follows: (i) fire and extended coverage insurance insuring Tenant's interest in its improvements to the Premises and contents, owned or leased and contained therein; (ii) workers' compensation insurance as required by applicable law; ~~(iii) automobile liability insurance in amounts not less than One Million and no/100 Dollars ($1,000,000) with respect to any one casualty or occurrence;~~ and (iv) commercial general liability insurance insuring Tenant against any and all liability for injury to or death of a person or persons and for damage to property occasioned by or arising out of activities or negligence of Tenant, its agents, employees, guests, or licensees in the Premises, the limits of such policy or policies to be in amounts not less than One Million and No/100 Dollars ($1,000,000) with respect to any one casualty or occurrence. The commercial general liability insurance and automobile liability insurance shall name Landlord as an additional insured. Insurance required hereunder shall be in companies acceptable to Landlord.

INITIAL

INITIAL

(b) Prior to the commencement of the term of this Lease and thereafter prior to expiration of current policies, Tenant shall provide Landlord with a certificate of insurance evidencing such coverage which complies with the requirements of this Lease. Any deductibles appearing in such coverage shall be the responsibility of Tenant.

8.3 Waiver of Subrogation. Landlord and Tenant shall each have included in all policies of fire and extended coverage insurance respectively obtained by them with respect to the Premises a waiver by the insurer of all right of subrogation against the other in connection with any loss or damage thereby insured against. To the full extent permitted by law, Landlord and Tenant each waives all right of recovery against the other for, and agrees to release the other from, loss or damage to the extent such loss or damage is covered by valid and collectible fire and extended coverage insurance in effect at the time of such loss or damage.

8.4 Indemnity. Tenant shall indemnify and hold harmless Landlord from and against any and all claims arising from Tenant's use of the Premises, or from the conduct of Tenant's business or from any activity, work or things done, permitted or suffered by Tenant in or about the Premises and shall further indemnify and hold harmless Landlord from and against any and all claims arising from any breach or default in the performance of any obligation on Tenant's part to be performed under the terms of this Lease, or arising from any negligence of the Tenant, or any of Tenant's agents, contractors, or employees, and from and against all costs, attorney's fees, expenses and liabilities

To: helen bear@First floor,Lynne Surdyk@CREDIT
From: Barbara McHarg@WP
Cc:
Bcc:
Subject: re: fwd: re: fwd: Mighty Enterprises
Attachment:
Date: 3/17/98 11:01 AM

Try Mr. Stone - telephone 310/516-7478.

Helen may have newer information.

PS - Trico had to generate very specific invoices (include the amount of penalty for late payment) in order to get prompt payment from this tenant.

Original text
From: Lynne Surdyk@CREDIT@PACCAR, on 3/17/98 10:32 AM:
I don't see that we've received anything this month from Dynateck.....does anyone have
a phone number/contact name that I can call to track down $$$?????

TX!

HAVE A GREAT DAY!!!

From: helen bear@First floor@PACCAR, on 3/17/98 10:00 AM:
See Barbara's note. We took Mighty Might off the payable listing as checks have been sent by Dynateck.

From: Barbara McHarg@WP@PACCAR, on 3/17/98 9:22 AM:
To: helen bear@First floor@PACCAR

Have you seen a check from the joint tenant Dynateck America, Inc.?

From: helen bear@First floor@PACCAR, on 3/17/98 9:13 AM:
Do you know why they haven't paid March rent?

From: Lynne Surdyk@CREDIT@PACCAR, on 3/17/98 9:03 AM:
To: helen bear@First floor@PACCAR

Is anything going on w/ Mighty Enterprises? We haven't seen a check from them for March Rent
yet as far as I can tell....?????????

HAVE A GREAT DAY!!!

To: Barbara McHarg@WP,helen bear@First floor
From: Lynne Surdyk@CREDIT
Cc:
Bcc:
Subject: Mighty/Dynateck --- August Rent Payment
Attachment:
Date: 8/26/98 9:14 AM

FYI ---

I was informed today after several phone calls that Mighty/Dynateck's August Rent Payment was mailed yesterday.
Apparently Dynatech was late getting their check to Mighty.

HAVE A GREAT WEEK!!

September 21, 1998

PACCAR Inc

Mr. Dennis A. Dickerson
CRWQCB Los Angeles Region
101 Centre Plaza Drive
Monterey Park, CA 91754-2156

Dear Mr. Dickerson:

Reference your letter of September 4, 1998 concerning annual estimation for SLIC cost recovery program – Former Trico Industries, 1206 West 190th Street, (File No 96-062, PCA #20491).

Please update your records to show that the correct address for the property is:

PACCAR Inc (Former Trico Industries)
1206 West 196th Street
Torrance, CA 90502

This property was retained by PACCAR when Trico Industries was sold to EVI in late 1997. My correct address is:

Robert K. Butler, PE
PACCAR, Inc
P O Box 1518
Bellevue, WA 98009

I can be reached (425) 468-7435 if you have any questions.

Sincerely,

R K Butler

R. K. Butler
Corporate Environmental Manager

Attachment

Cc: Jim Ross
Keith Elliott
Phil Gladfelter
Larry Sims

RKB/vz

California Regional Water Quality Control Board

Los Angeles Region

Peter M. Rooney
Secretary for Environmental Protection

Internet Address: http://www.swrcb.ca.gov
101 Centre Plaza Drive, Monterey Park, California 91754-2156
Phone (323) 266-7500 • FAX (323) 266-7600

Pete Wilson
Governor

September 4, 1998

Robert K. Butler, P.E.
~~Trico Industries~~ PACCAR Inc
P.O. Box 1518
Bellevue, WA ~~98004~~ 98009

ANNUAL ESTIMATION FOR SLIC COST RECOVERY PROGRAM - FORMER TRICO INDUSTRIES, 1206 WEST ~~190~~TH STREET, (FILE NO. 96-062, PCA # 20491)
196 TORRANCE

Dear Robert Butler, P.E.:

The Porter-Cologne Water Quality Control Act (Porter-Cologne), Section 13304, allows the Regional Water Quality Control Board (Regional Board) to recover reasonable expenses from a responsible party for overseeing site investigation and cleanup of unregulated discharges adversely affecting the State's waters. It is our intent to continue to recover costs for regulatory oversight work conducted at this site in accordance with our letter dated January 31, 1996. In compliance with Assembly Bill 2507, this letter provides the following information regarding costs for regulatory oversight work:

1. A detailed estimate of the work to be performed or services to be provided.

2. A statement of the expected outcome of the estimated work.

3. The billing rates for all individuals and classes of employees expected to engage in the work or services.

4. An estimate of all expected charges to be billed to you by this agency.

Estimate of Work to be Done

Board staff estimates the following work will be performed during the 1998/1999 fiscal year:

- Review site investigation work plan.
- Conduct internal communications (i.e. meetings memos, etc.) regarding the project.
- Meetings with site representatives and interested third parties.
- Site inspection and sampling.

Statement of Expected Outcome

The following is the expected outcome of work that will be performed at the subject site during fiscal year 1998/1999: Approve soil investigation work plans and reports.

Billing Rates

Enclosed is the billing rates for employees expected to perform work at the subject site. The names and classifications of employees that charge time to this site will be listed on the invoices. The average billing rate is approximately $70 per hour.

Estimate of Expected Charges

Board staff expect to charge about 10 hours of work related to this site during fiscal year 1998/1999 (July 1, 1998 through June 30, 1999). Based on the average billing rate of $70 per hour, the estimated billing charge for the subject site is $700.

If you have any questions concerning the billing procedure, please contact Jim Ross, Site Cleanup Unit Chief at (323) 266-7550 or Keith Elliott (323) 266-7614.

Sincerely,

DENNIS A. DICKERSON
Executive Officer

cc: Rick Rempel, State Water Resources Control Board Division of Clean Water Program

Enclosures

SUMMARY OF COSTS

Overhead costs = 80%* times salary and benefits

Administrative costs = State Board: 15%* times salary and benefits
Regional Board: 10%* times salary and benefits

Example: Associate Water Resources Control Engineer

Salary:	$ 5,030
Overhead:	4,024
Admin: State Board:	754
Regional Board:	503
Total Cost per month:	$10,311

Divided by 176 hours per month equals per hour $ 58.58

* These are averages. May vary a few percent between billing periods.

Note: Due to the various classifications that expend SLIC resources, an average of $70.00 per hour can be used for projection purposes.

The name and classification of employees performing oversight work on your site will be listed on the invoices..

SPILLS, LEAKS, INVESTIGATIONS, AND LEAKS (SLIC) PROGRAM
COST RECOVERY FOR REGULATORY OVERSIGHT CLEANUPS

MONTHLY SALARY SCALE'S BY JOB CLASSIFICATION

CLASSIFICATION	ABBR.	SALARY SCALE (Includes Benefits)
Student Assistant	SA	1,914 - 2,898
Office Assistant	OA	2,083 - 2,779
Office Technician	OT	2,649 - 3,221
Environmental Specialist I	ESI	3,120 - 3,747
Environmental Specialist II	ESII	3,791 - 4,567
Sanitary Engineering Technician	SET	3,459 - 4,832
Water Resources Control Engineer	WRCE	3,728 - 5,184
Engineering Geologist	EG	3,728 - 5,184
Associate Governmental Program Analyst	AGPA	4,459 - 5,382
Environmental Specialist III	ESIII	4,567 - 5,515
Sanitary Engineering Associate	SEA	4,789 - 5,820
Associate Water Resources Control Engineer	AWRCE	5,030 - 6,110
Associate Engineering Geologist	AEG	5,030 - 6,113
Environmental Specialist IV	ESIV	5,258 - 6,348
Senior Water Resources Control Engineer	SWRCE	5,790 - 7,037
Senior Engineering Geologist	SEG	5,790 - 7,037
Supervising Water Resources Control Eng	SUWRCE	6,354 - 7,752

cc → RKB
HDS
PEG

HARTCROWSER

Earth and Environmental Technologies

Hart Crowser, Inc.
One World Trade Center, Suite 2460
Long Beach, CA 90831-2460
Fax 562.495.6361
Tel 562.495.6360
www.hartcrowser.com

MEMORANDUM

DATE: March 31, 1999

TO: Larry Sims

FROM: Alistaire Callender

RE: Visit to Mighty Enterprises at 1206 West 196th Street in Torrance California
J-6830

I visited the subject facility on March 26, 1999 to observe conditions related to surface water runoff. The facility manager, who insisted on being called Stone, showed me around. The main issues at the facility according to Stone, related to plugging of the drains on the east side of the building labeled A on the attached map. There are three sumps present on the west side of the building, which receives runoff from the roof and surrounding area. This sump drains to another sump on the east side of the building, via a subsurface drain, which runs from west to east under the floor of the building. The pump in this east sump apparently became plugged, and as a result the sump overflowed and discharged offsite to the southeast. A shallow storm drain runs north/south immediately east of the fence line. There is a connection between the eastern sump and this offsite storm drain. According to Stone, this pump was fixed, and the eastern sump no longer floods the area.

The main drainage problem at the site is now the sewer manhole just north of the stormwater sump. This manhole contained rather foul looking liquid at the time of my visit, and apparently receives domestic sewage from the facility. The pump in this manhole is not working, and so the manhole overflows when it rains, apparently discharging sewage to the offsite storm drain. I spoke with Rick Baumann of Torrance Plumbing, the company that repaired the pump in the eastern sump. He indicated that the pump in the sewage manhole needed repair, but that that manhole would have to be pumped out and cleaned prior to repairing the pump.

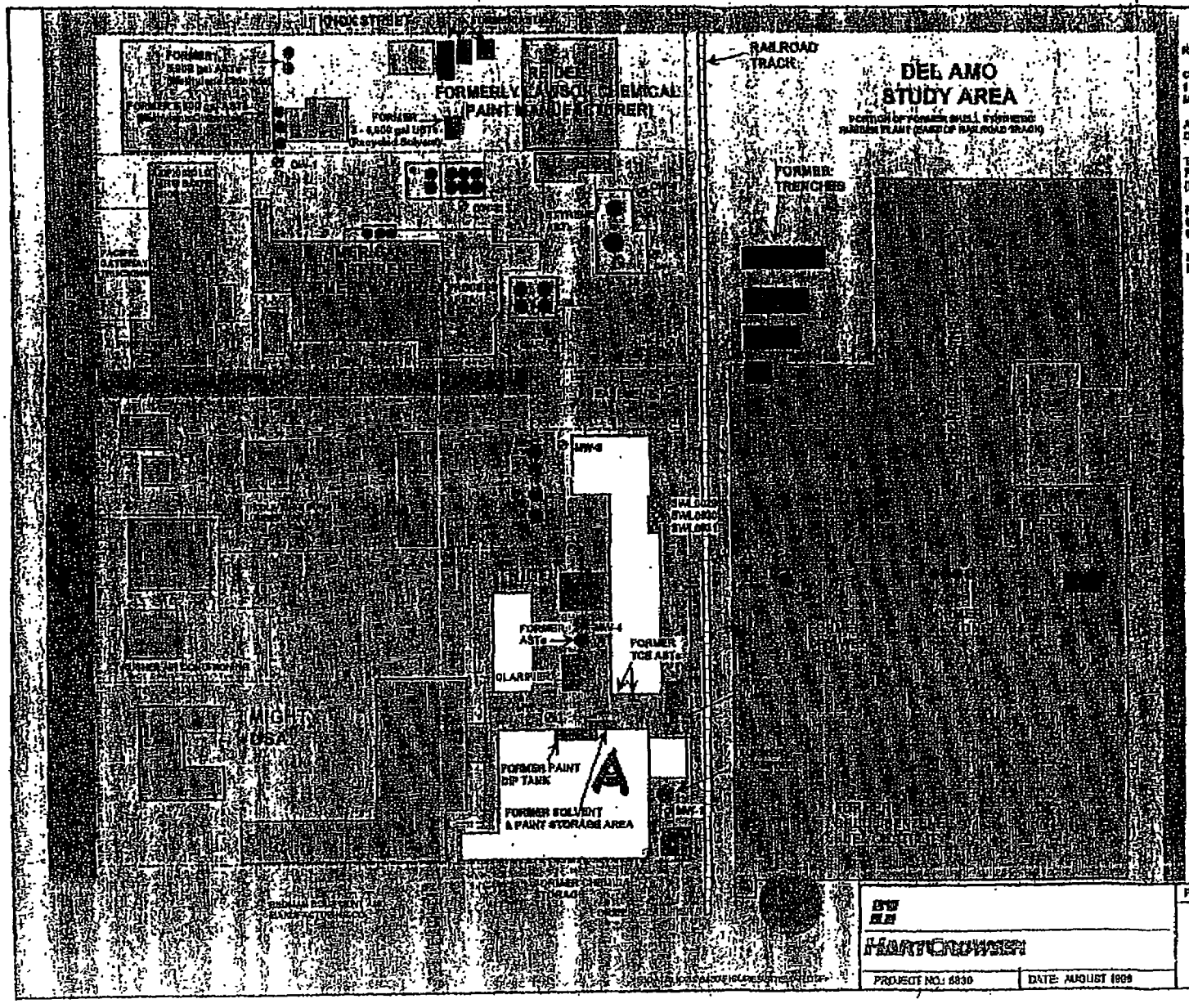
ISSUES

The main issues at the facility appear to be:

- Is the connection to the storm drain legal? That is, is there a NPDES permit for the facility?
- How long has the sewer manhole been plugged, and is it discharging offsite every time it rains?

The attached figure shows the locations of the sumps, manhole and offsite storm drain.

F:\data\jobs\6830\torrance Stormwater



REFERENCES

CERCLA SITE INSPECTION, LAWSON ENTERPRISES, INC., 19700 S. NORMANDIE AVE., TORRANCE, CALIFORNIA, MARCH 30, 1987 (ECOLOGY AND ENVIRONMENT, INC.)

AMOCO CORPORATION - NOTIFICATION OF GROUNDWATER CONTAMINATION, AUGUST 27, 1993 (AMOCO)

TRIDO - PRELIMINARY SITE CHARACTERIZATION REPORT, FORMER TRICO INDUSTRIES FACILITY, JULY 12, 1993 (DSIO SCIENCE, INC.)

PHASE I REMEDIAL INVESTIGATION REPORT, DEL AMO STUDY AREA, LOS ANGELES, CALIFORNIA, OCTOBER 29, 1993 (DAMES & MOORE)

FINAL GROUNDWATER REMEDIAL INVESTIGATIONS REPORT, DEL AMO STUDY AREA, MAY 18, 1998, (DAMES & MOORE)

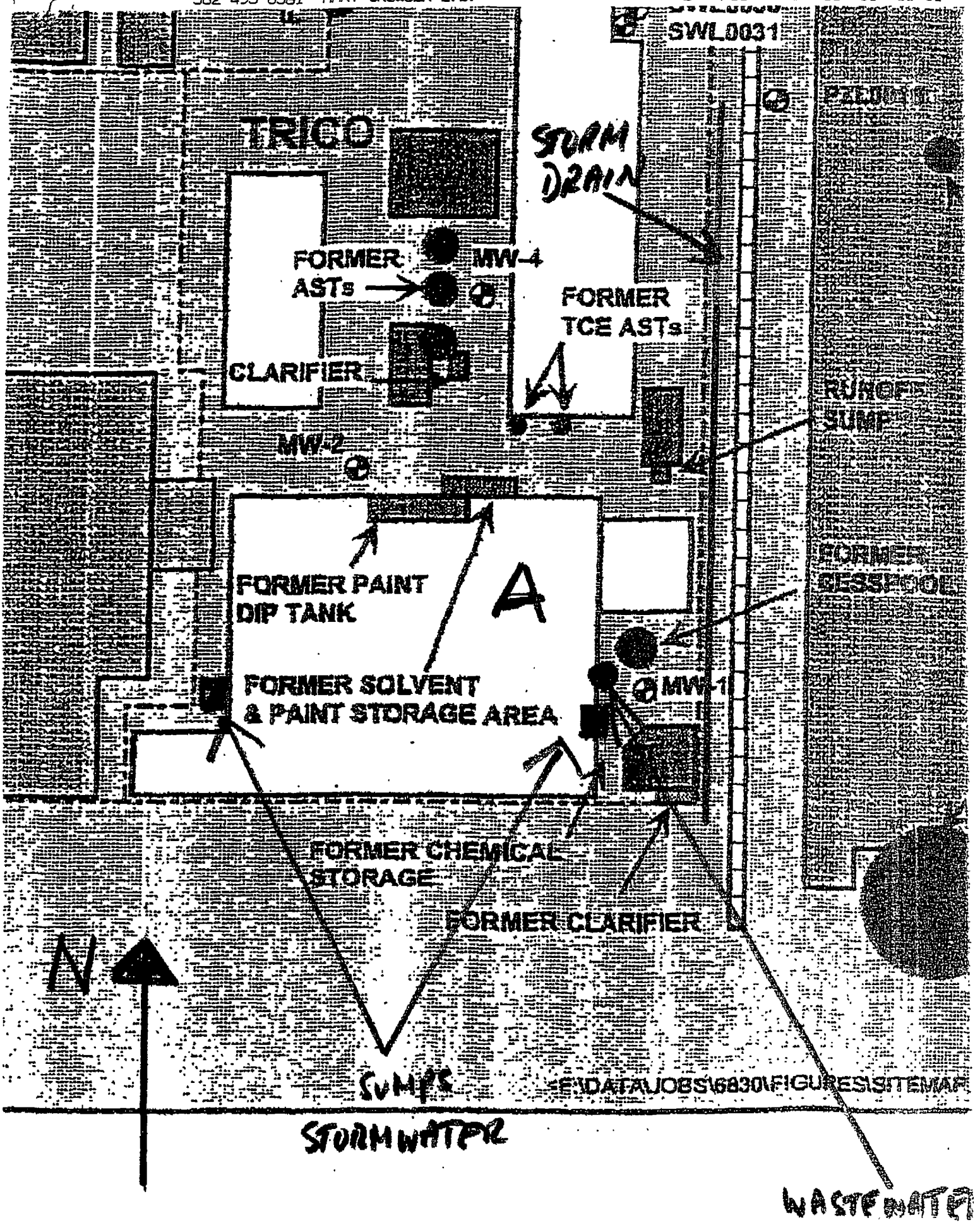
HARTCROWSER

PROJECT NO.: 6830 | DATE: AUGUST 1999

PROJECT NAME: TRIDO - TORRANCE

SITE MAP
WITH ADJACENT PROPERTIES

FIGURE 2


SWL0031
TRICO
STORM DRAIN
FORMER ASTs
MW-4
FORMER TCE ASTs
CLARIFIER
RUNOFF SUMP
MW-2
FORMER PAINT DIP TANK
A
FORMER CESSPOOL
FORMER SOLVENT & PAINT STORAGE AREA
MW-1
FORMER CHEMICAL STORAGE
FORMER CLARIFIER
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STORMWATER
WASTEWATER

Certified

PACCAR INC

June 9, 1999

Mr. Peter Tsai
Dynateck of America
19706 South Normandie Avenue
Torrance, CA 90502

Dear Sir or Madam:

Please be advised that representatives of PACCAR, your landlord, will enter the Premise at 1206 West 196th, Torrance, California on about June 25th for the purpose of a site inspection. Based on a visit to the premise and photos taken May 26, 1999, we are concerned that condition and use of the premise are not consistent with the terms of the Lease, (copy of photos enclosed). The concerns being raised with this letter are the same concerns raised in prior correspondence to you on June 7, 1996, and October 22, 1996. Your occupation and use of the premise present significant additional safety, fire and general liability risks to PACCAR. Without prejudice to any of PACCAR's remedies, Tenant is requested to take immediate corrective actions to bring condition and use of the property in compliance with the Lease before the visit. Specific points of concern and discussion follow.

Condition – The condition has deteriorated since our last recorded inspection made October 3, 1996. The Lease provides that Tenant shall keep in good order, condition and repair the Premises and every part thereof. The current conditions present safety, fire and general liability risks. Conditions that require corrective action include housekeeping and removal of debris, repair of paving, repair of roofing, and repair of plumbing.

Roof and Plumbing Repair and Alterations – On October 16, 1998, in response to a conversation regarding roof repair and plumbing in the bathrooms, we advised that per the Lease, Tenant is responsible for these repairs, (copy of letter attached). On June 4, 1999, Mr. Stone Lin called me to inquire about having PACCAR pay for repair of plumbing. He advised that the leak was more extensive than originally thought. He also inquired about making a plumbing alteration for an additional toilet. We reiterated that per the Lease, Tenant, at Tenant's expense is responsible for plumbing repairs. We advised that any alterations would require PACCAR approval. Tenant is requested to either have completed or have a plan for completing plumbing repairs at our visit on June 25th. We will also willingly review any plans for plumbing alterations at the same time.

Building Use – The Tenant continues to conduct operations involving machine tool assembly, painting and sewing not allowed under the terms of the lease. On August 20, 1996, you advised that the painting operation had been removed from the leased premises; however, on our visit on May 26, 1999, a painting operation appeared to be in use. On October 22, 1996, we transmitted a proposed amendment to you that would have modified allowed use to permit you to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale, (copy attached). This Lease amendment was never returned executed by Tenant. On May 26, 1999 painting, machine tool assembly and sewing operations appeared to be going on. The Premises was leased for the specific purpose of storage of shoes, umbrellas and other cloth material goods, and for no other purpose without the prior written consent of Landlord. (Paragraph 3.1). Tenant shall cease activities not allowed by the lease immediately.

P.O. Box 1518 Bellevue, Washington 98009 Telephone 425-[illegible]
PACCAR Building [illegible] 108th Avenue N.E. Bellevue, Washington 98004

PACCAR appreciates having Dynateck America as a tenant and looks forward to remedy of defective conditions and non-allowed uses, and negotiation of new lease terms, as appropriate. Please arrange a representative to attend this inspection and meet with us. We would also like to discuss updating rent for this property relative to current market value. Please call me to confirm exact date and time for the visit (425) 468-7519).

Very truly yours,

Dan Lewis 6/14

Daniel N. Lewis
Director of Corporate Services

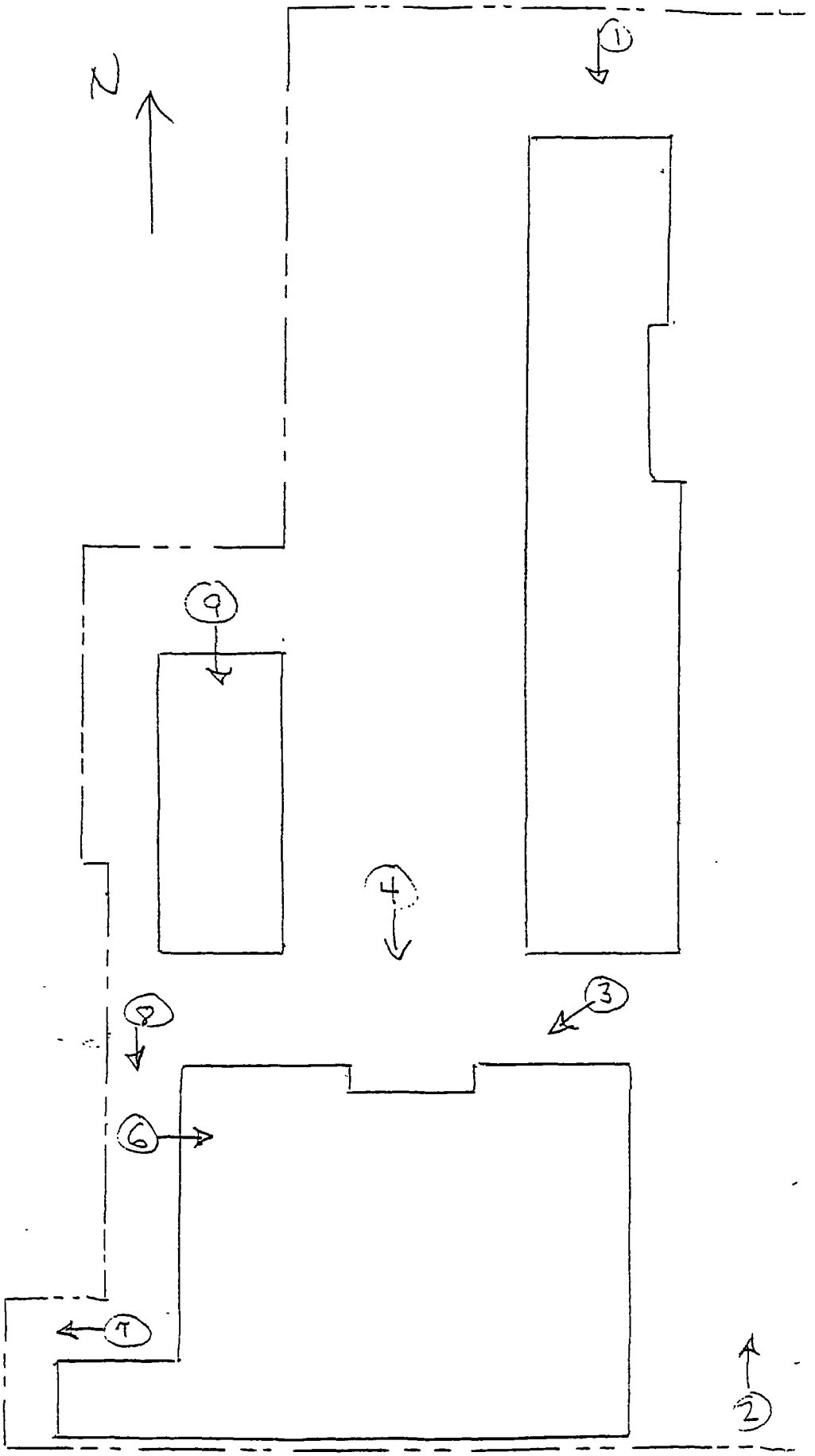
DNL:

Enclosures – Photos taken May 26, 1999
Fax to Mr. Stone dated October 16, 1998
Letter transmittal of Ammendment 2 to Dynatech dated October 22, 1996
Inspection Report Dated October 4, 1996
Fax and letter from Seeley Company, to PACCAR dated August 20, 1996
Inspection Report dated August 29, 1996
Letter to Dynateck dated August 5, 1996
Letter to Dynatech dated June 7, 1996
Inspection Report Dated May 24, 1996

cc: R.E. Bangert, PACCAR
Phillip E. Gladfelter, PACCAR

NOT TO SCALE

Photo Legend



TRICO
Torrence, CA.
6/3/99
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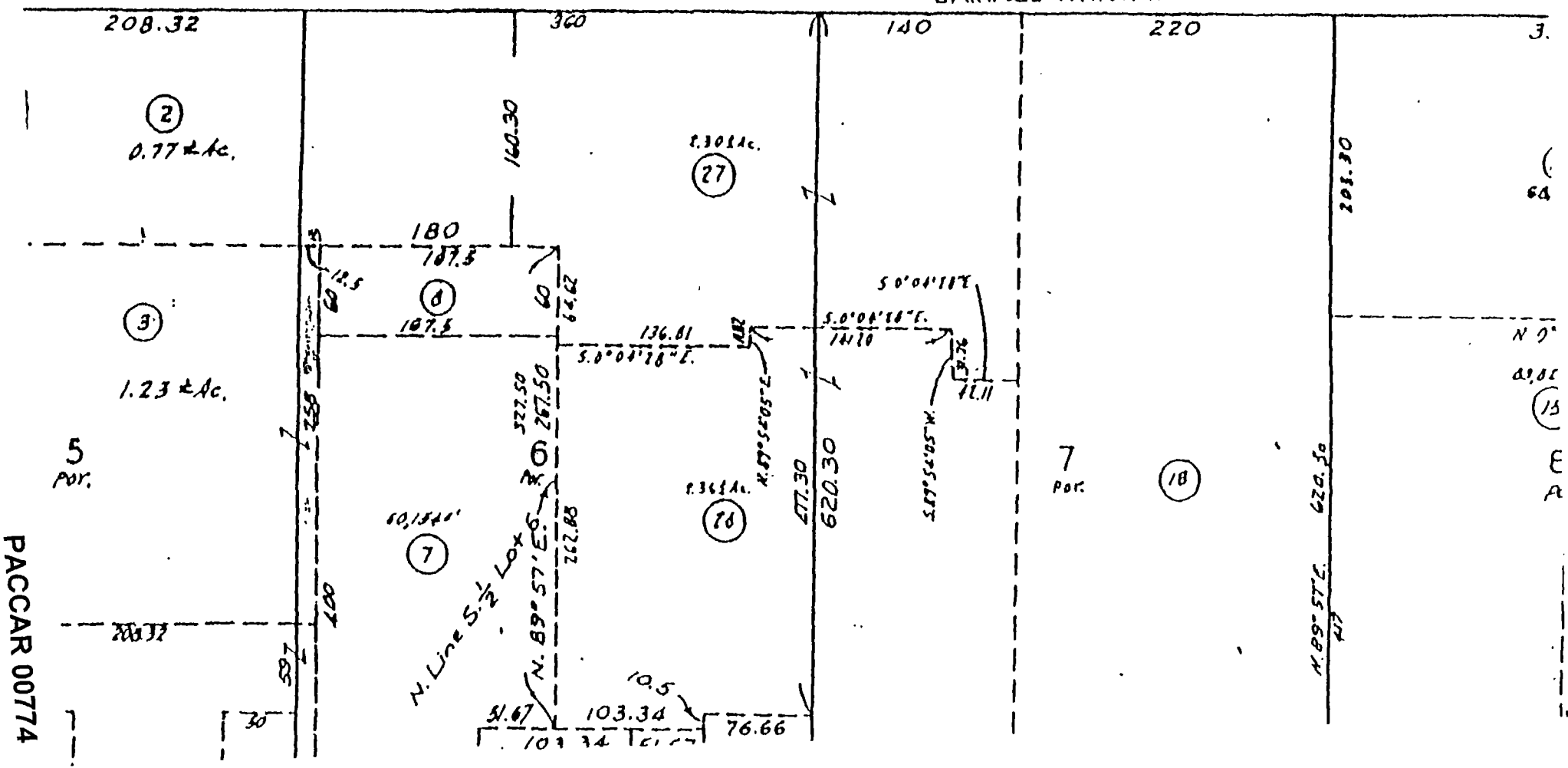
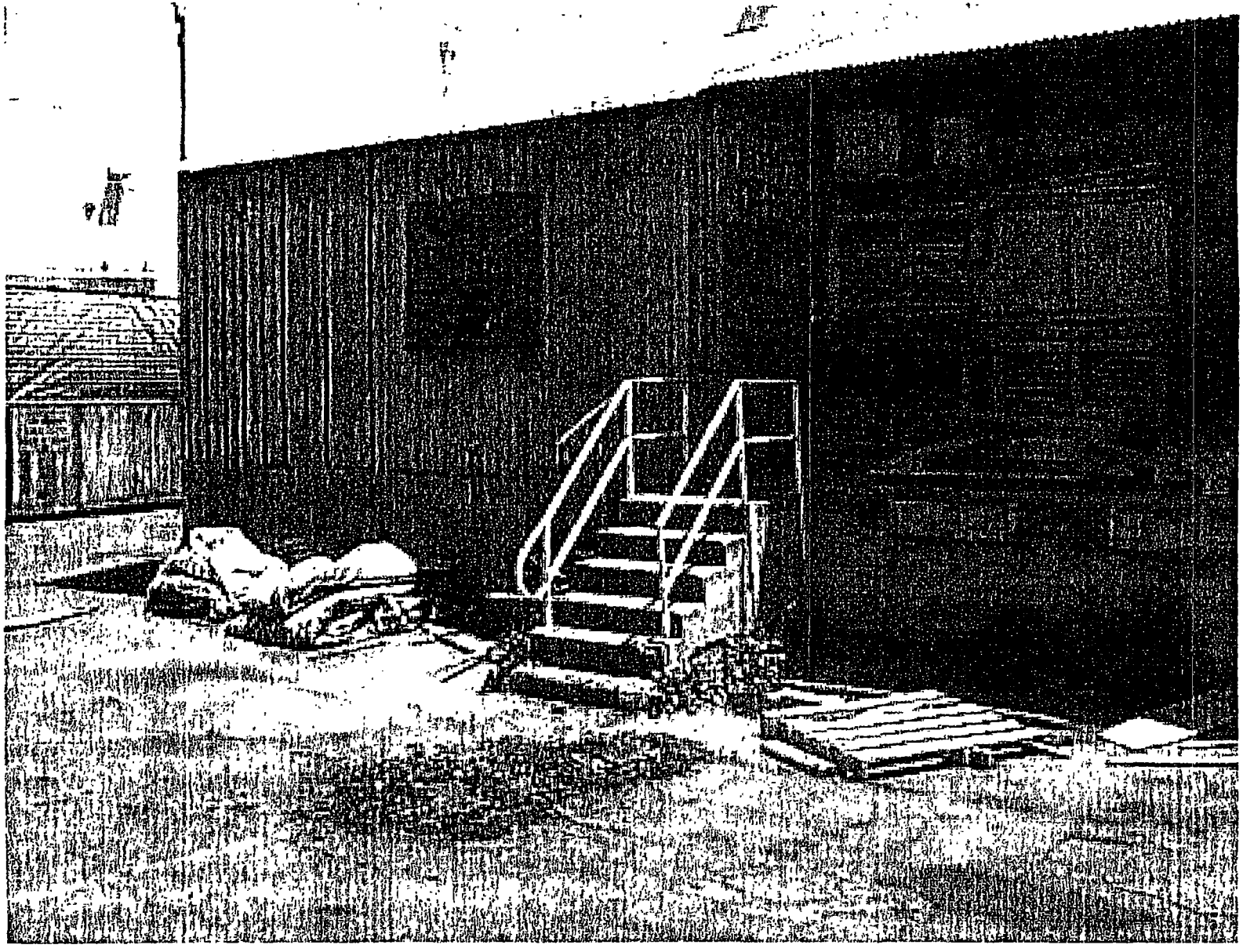
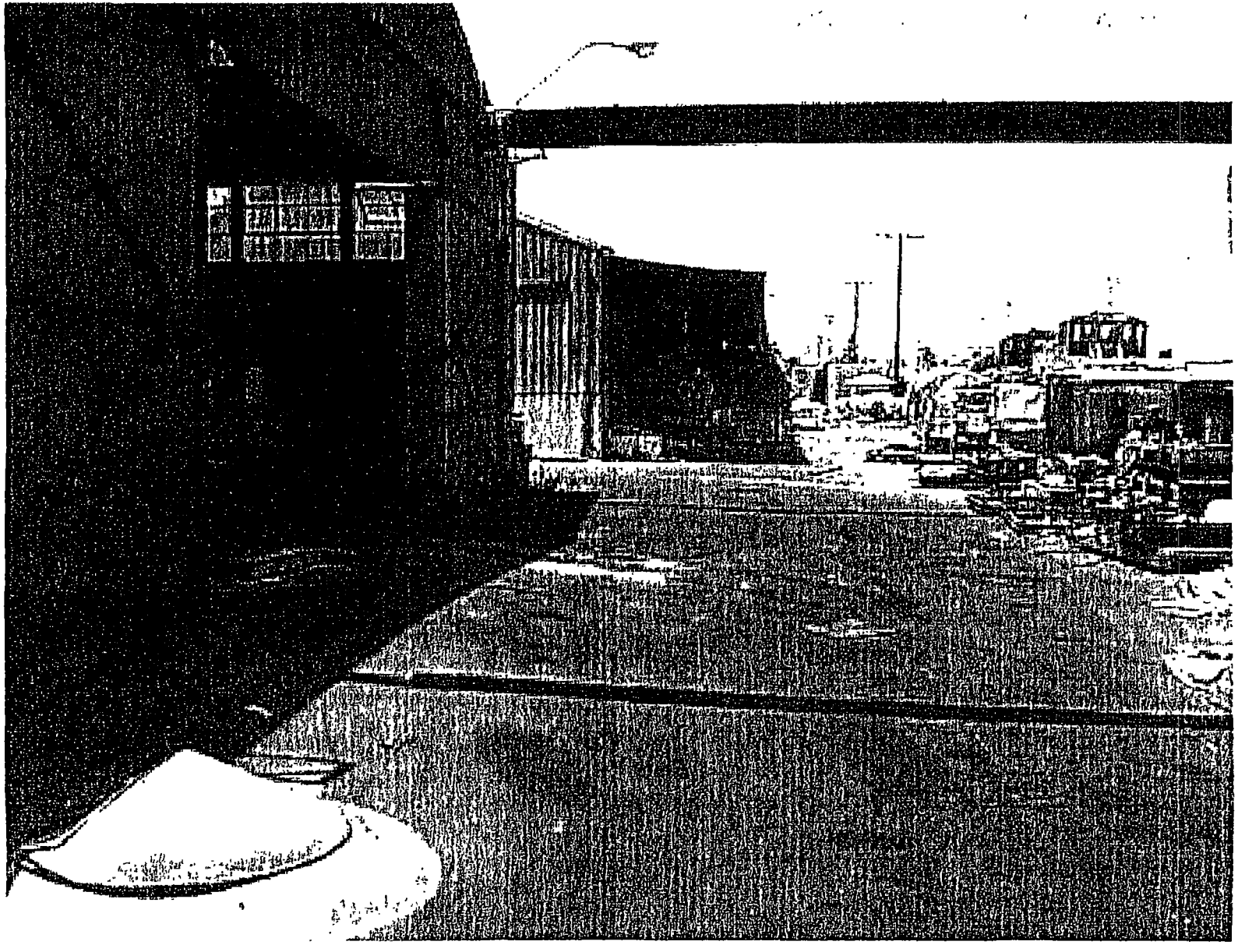


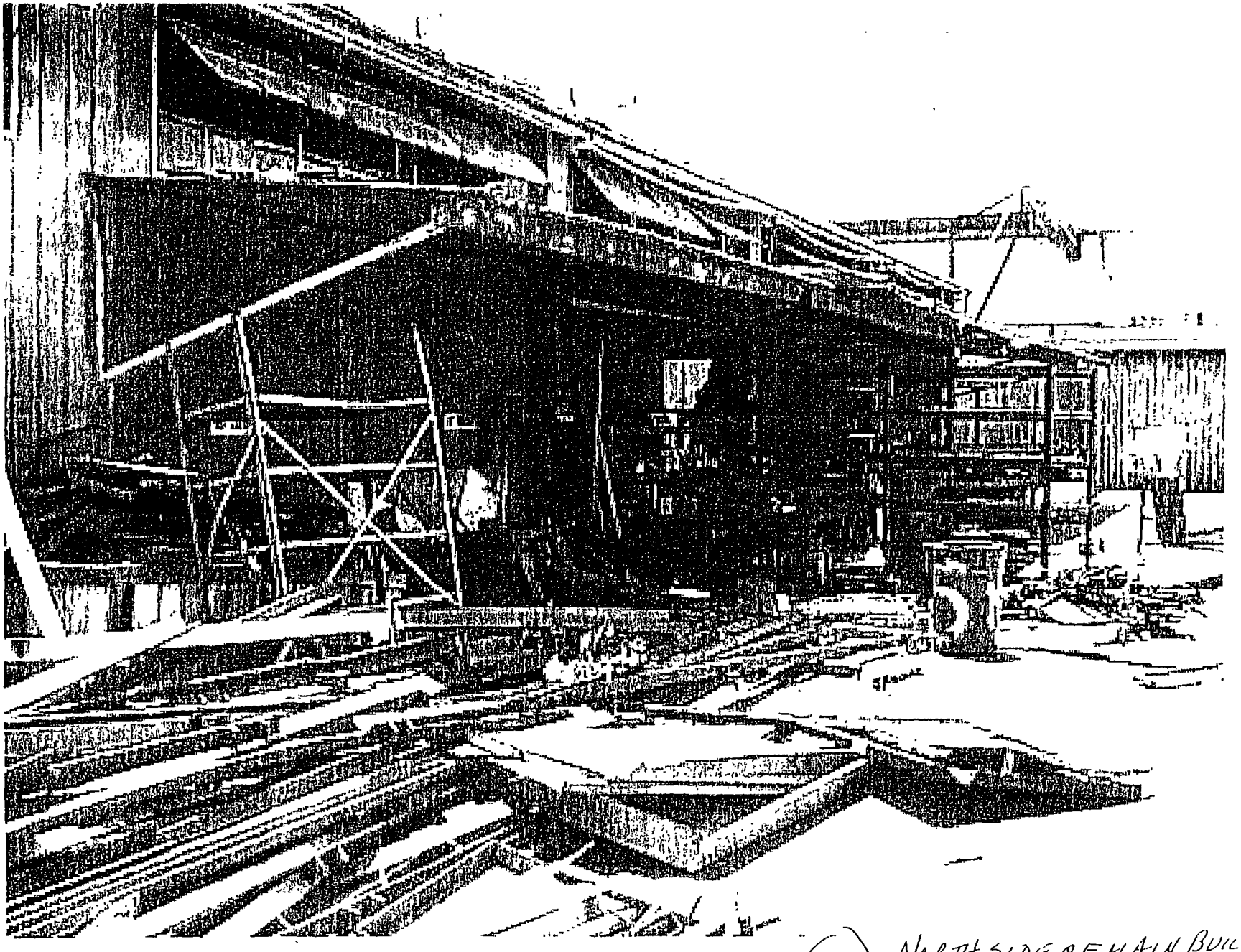
PACCAR 00774



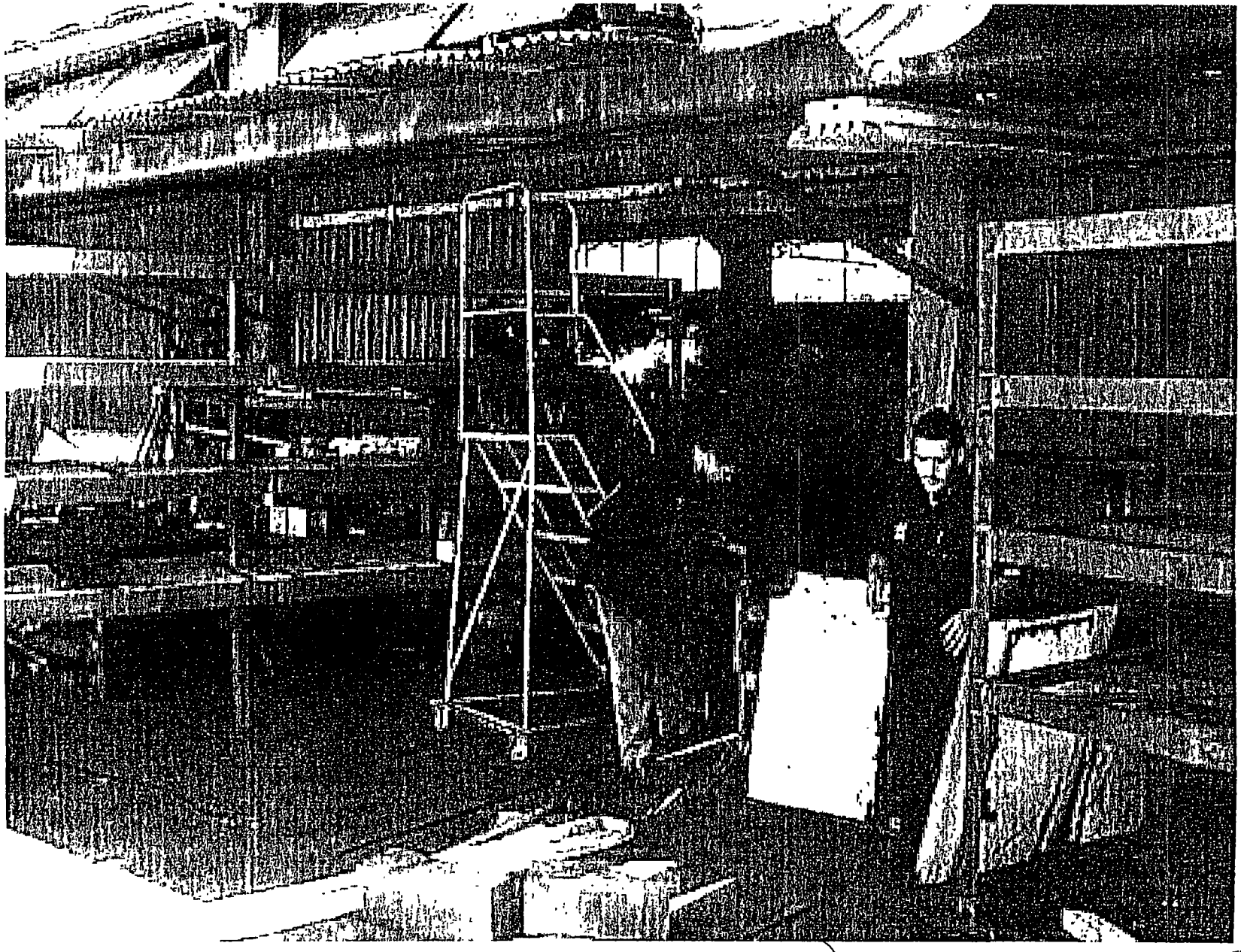
(1) NORTH END OF WAREHOUSE
5/26/99



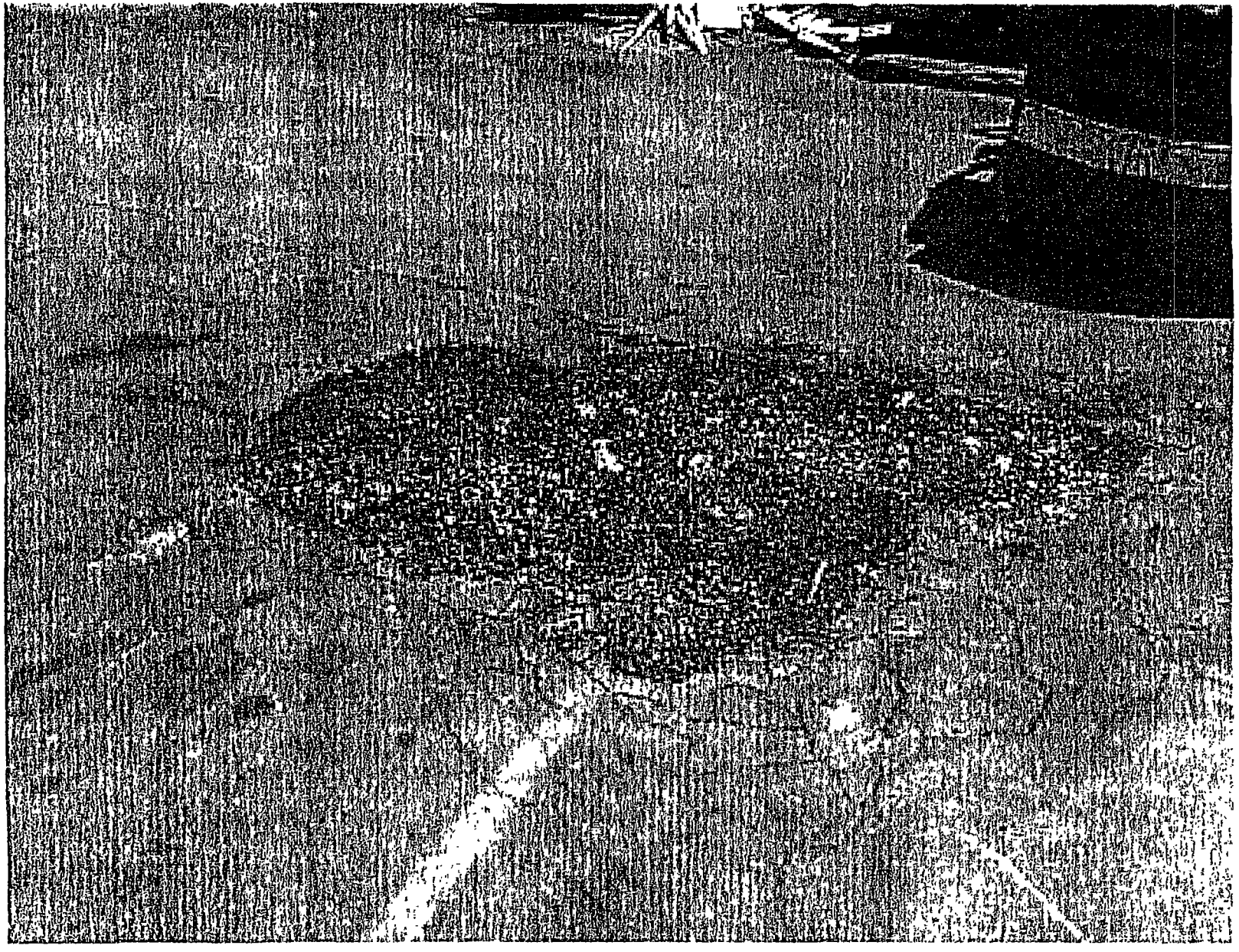
(2) EASTERN EDGE OF PROPERTY
5/26/99



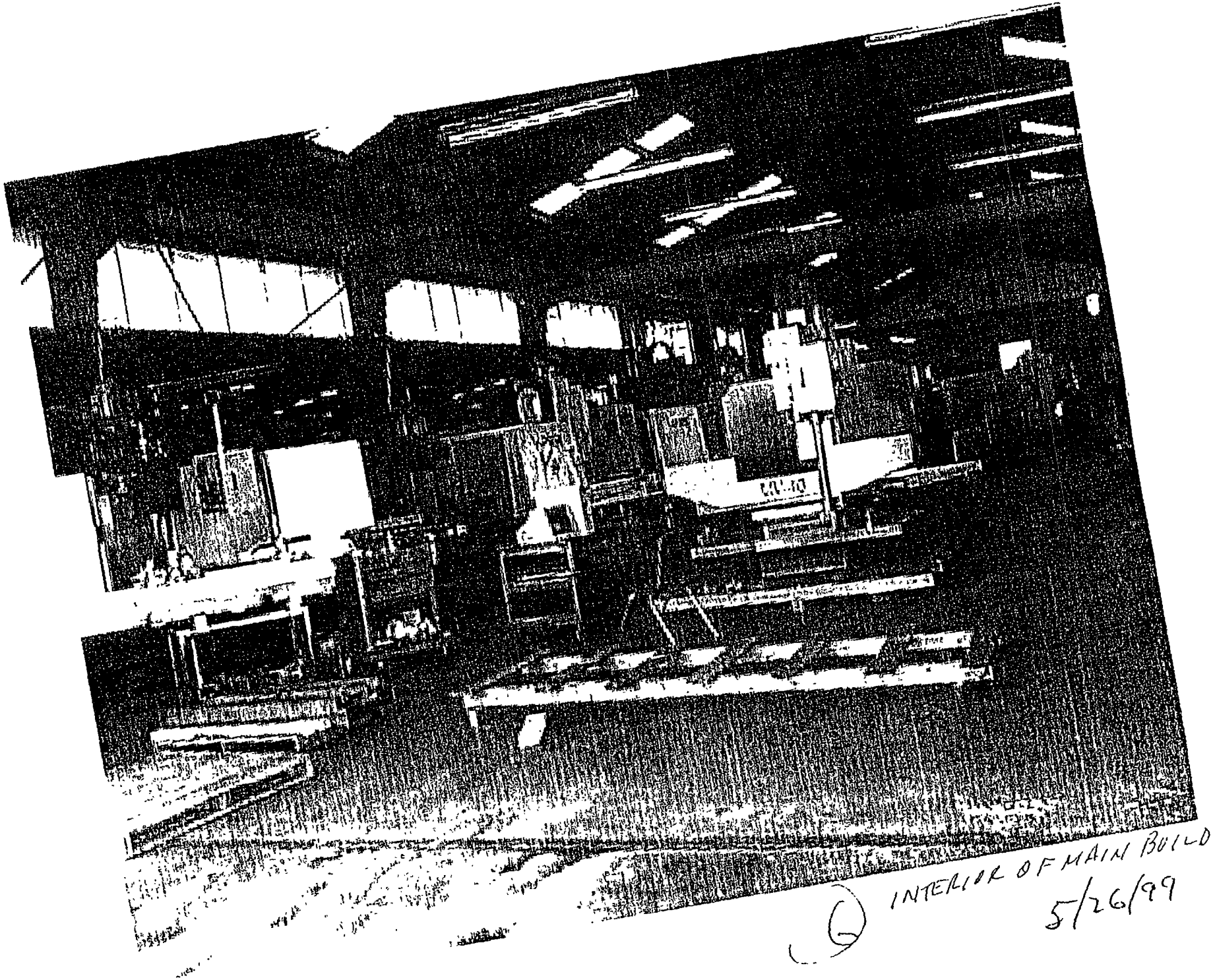
(3) NORTH SIDE OF MAIN BUILDING
5/26/99



(4) NORTH SIDE OF MAIN BUILDING NEAR LOCATION OF TRICO'S PAINT DIP TANKS. 5/26/99

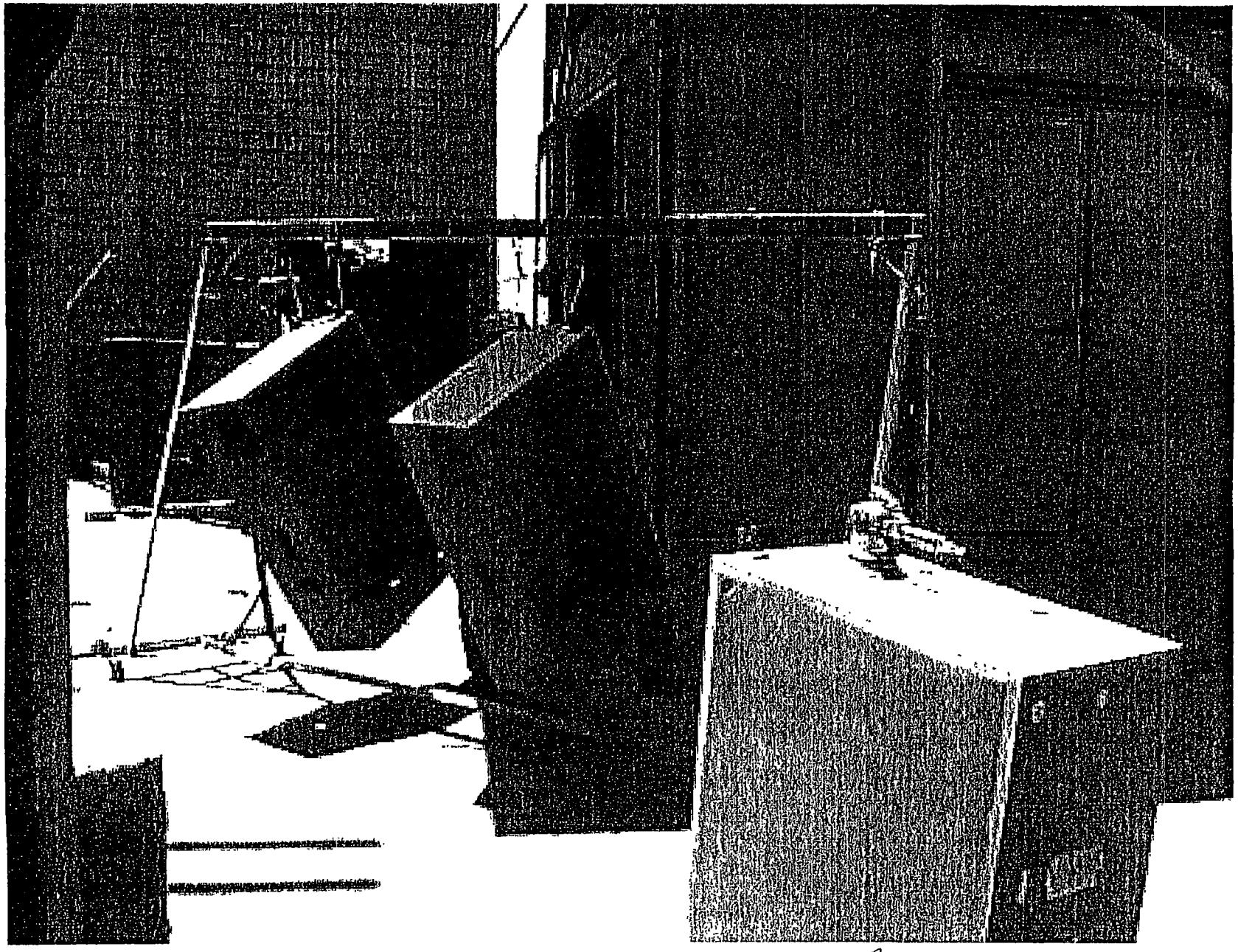


(5) UNKNOWN LOCATION
5/26/99

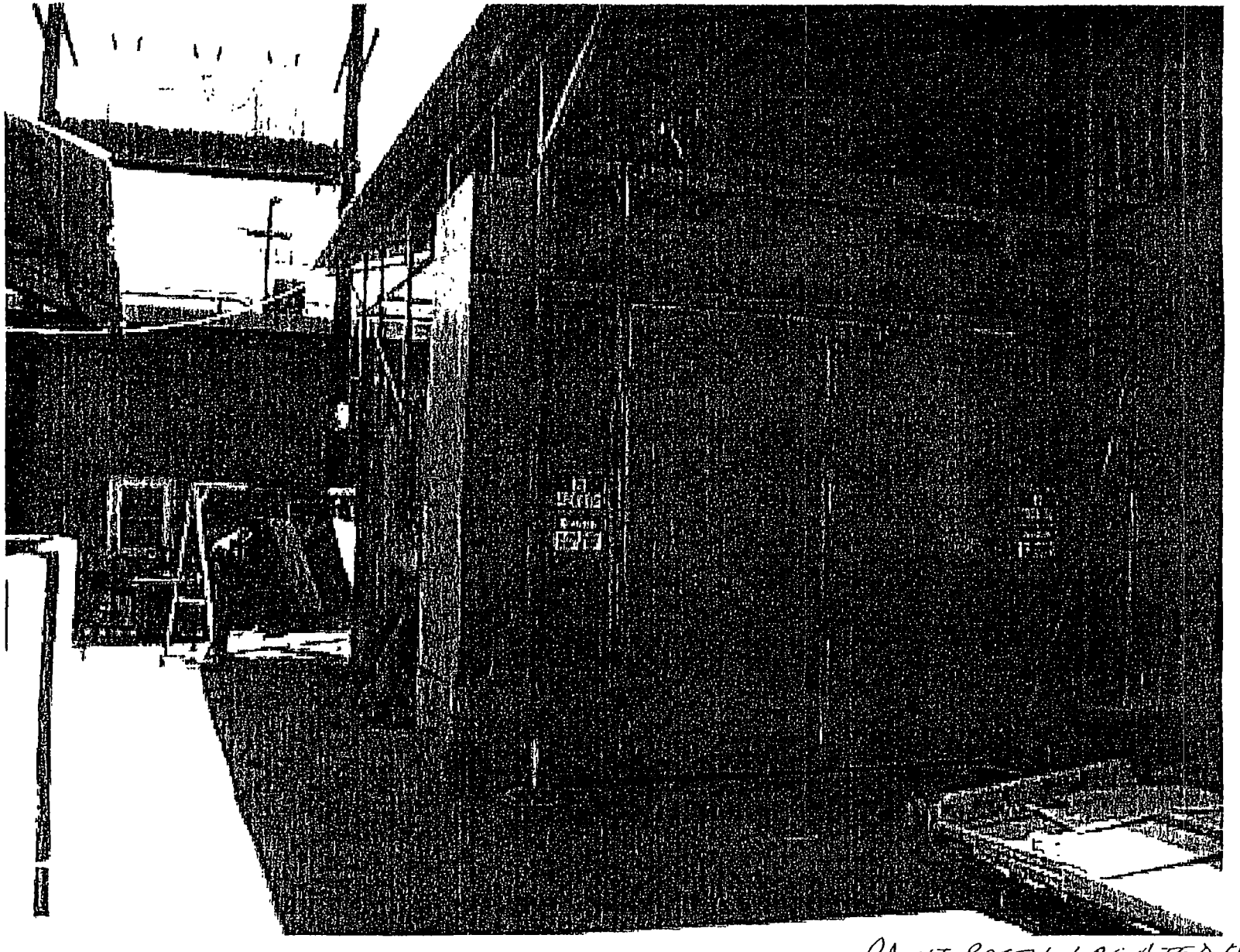


(9) INTERIOR OF MAIN BUILDIN
5/26/99

PACCAR

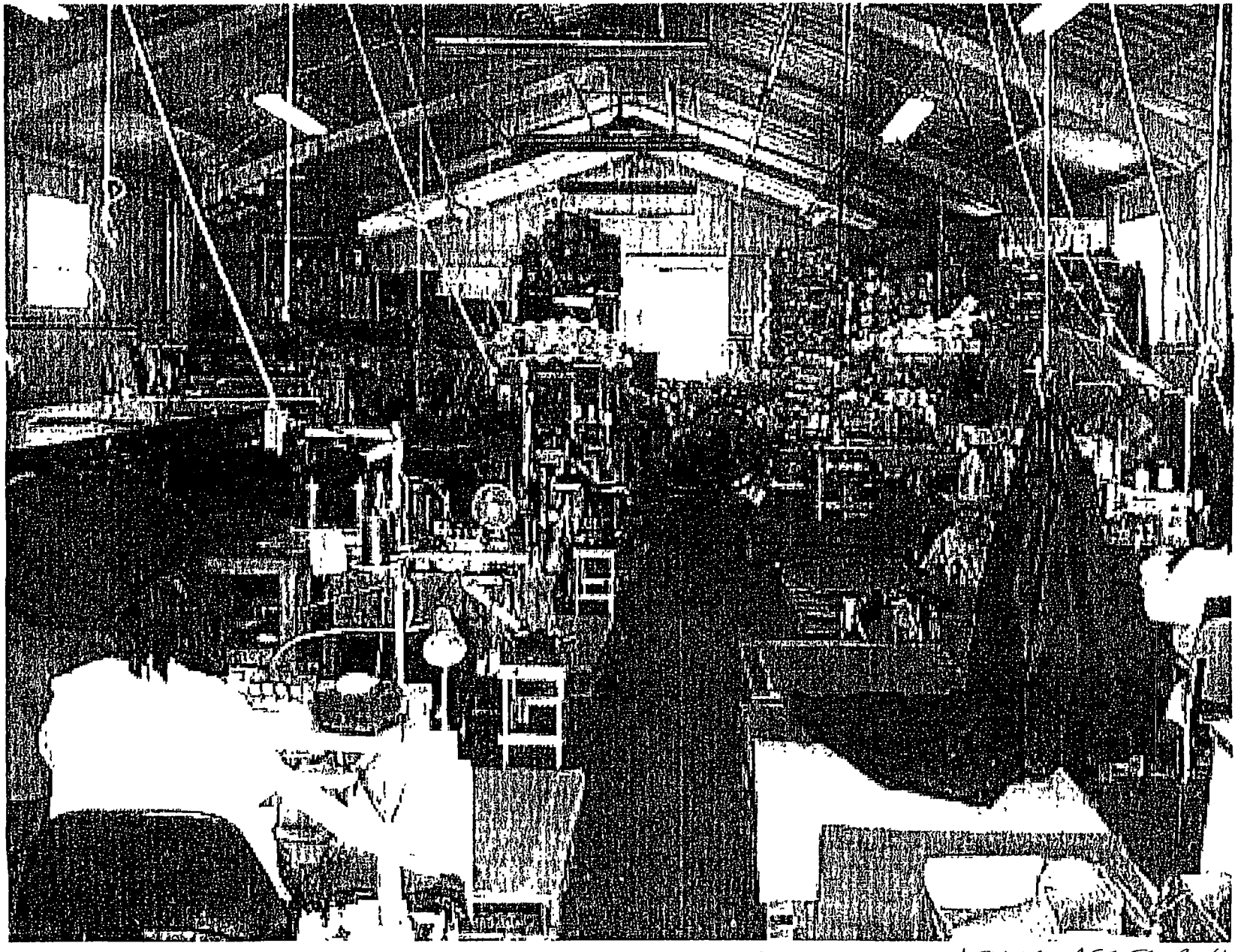


(7) BETWEEN MAIN BUILDING AND TSAI'S PROPERTY. STRUCTURE ON RIGHT APPEARS TO BE PAINT



(8)

PAINT BOOTH LOCATED AT OR ON LINE DIVIDING TSAI'S PROPERTY FROM PACCAR'S. (TSAI ON RIGHT)



(9) INSIDE NEWER ASSEMBLY BUILDING.

5/26/99

Facsimile

PACCAR Inc

No. Of Pages: 5

Return FAX: (425) 468-8213

Date: October 16, 1998

TO: Mr. Stone (FAX 310-516-0368)

FROM: Dennis Sather Dennis / SB

Message:

Confirming our conversation today, you are responsible for the roof repair and plumbing in the bathrooms at the Torrance plant. Attached are relevant lease pages which confirm this agreement.

HDS:hlb

attachment

PACCAR Inc

October 22, 1996

Mr. Peter Tsai
Dynateck America Inc.
Mighty Enterprises Inc.
19706 So. Normandie Avenue
Torrance, CA 90502

Re: 1206 West 196th
Torrance, CA
Lease Dated September 15, 1993, as Amended

Gentlemen:

Reference is made to my letter to you of June 7, 1996, and Eric Herold's letter in response dated August 20, 1996. I further enclose a Trico Inspection Report of the premises dated October 3, 1996.

The Lease, Section 3.1, currently provides "the Tenant shall use the premise solely and only for the purpose of storage of shoes, umbrellas and other cloth material goods, and for no other purpose without the prior written consent of Landlord." Therefore, the Lease does not currently permit sewing or machine tool assembly and storage as now being conducted on the leased premises.

There are risks associated with these activities and the additional workers present on the premises, which are (or are not) apparent or easily definable. These might include OSHA and California OSHA state requirements, ADA requirements, increased fire risk, possible use of additional hazardous substances, and the like.

In order for Trico to consent to you continuing these activities as Tenant on the premises, we require that you signed the attached Amendment No. 2 to Lease protecting Trico against any consequences of these additional activities.

Please execute this Amendment in the spaces indicated and return all three copies to me. We will then have Trico execute one copy for each Tenant obligated on the Lease and return a fully executed copy to you.

[illegible] 98009 Telephone (206) 455-7400
[illegible] Bellevue Washington 98004

If you have questions regarding Trico's requirements, please contact me.

Very truly yours,

Philip E. Gladfelter
Corporate Real Property Manager

PEG:lp
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Enclosures

cc: R. E. Bangert, II
J. Dunavant (3040 East Slauson Ave., Huntington Park, CA 90253)
L. L. Sims
R. A. Hoel
Roger Pettitt, Esq. (626 Wilshire Blvd. #410, Los Angeles, CA 90017)
David Gurewitz, Esq. (10780 Santa Monica Blvd. #350, Los Angeles, CA 90025)
Eric Herold, Capital Commercial Real Estate Services (19300 S. Hamilton Ave., #110, P.O. Box 2883, Torrance, CA 90509-2883)
John Carver, Seeley Company (2050 W. 190th St., #101, Torrance, CA 90504

October 21, 1995

AMENDMENT NO. 2 TO LEASE

This is Amendment No. 2 ("Amendment") to that certain Lease dated as of September 15, 1993 (as previously amended, the "Lease") by and between Trico Industries, Inc. a California Corporation ("Landlord") and Dynateck America, Inc., and Mighty Enterprises, Inc., each a California Corporation (collectively "Tenant").

Landlord and Tenant have agreed to amend the Lease effective October 21, 1995-1996, in consideration of the agreements in this amendment, as herein said forth.

Landlord is willing to consent to certain additional permitted uses of the Premises on the following terms and conditions, to which Tenant agrees, but without limitation of any other provision of the Lease.

1. Subject to all other provisions of the Lease, Tenant shall have the right to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale, on the premises as additional permitted uses.

2. Tenant agrees at its expense to comply with all laws whatsoever applicable to such additional permitted uses of the Premises, and whether such laws require action by the owner or Tenant of the property.

As amended hereby the Lease is ratified and confirmed and remains in full force and effect.

_____
Dynateck America, Inc.

_____
Trico Industries, Inc.

_____
Mighty Enterprises, Inc.

19706 So. Normandie Avenue
Torrance, CA 90502

Certified

File Lease

JUN 14 1999

PACCAR Inc

June 9, 1999

Mr. Peter Tsai
Dynateck of America
19706 South Normandie Avenue
Torrance, CA 90502

Dear Sir or Madam:

Please be advised that representatives of PACCAR, your landlord, will enter the Premise at 1206 West 196th, Torrance, California on about June 25th for the purpose of a site inspection. Based on a visit to the premise and photos taken May 26, 1999, we are concerned that condition and use of the premise are not consistent with the terms of the Lease, (copy of photos enclosed). The concerns being raised with this letter are the same concerns raised in prior correspondence to you on June 7, 1996, and October 22, 1996. Your occupation and use of the premise present significant additional safety, fire and general liability risks to PACCAR. Without prejudice to any of PACCAR's remedies, Tenant is requested to take immediate corrective actions to bring condition and use of the property in compliance with the Lease before the visit. Specific points of concern and discussion follow.

Condition – The condition has deteriorated since our last recorded inspection made October 3, 1996. The Lease provides that Tenant shall keep in good order, condition and repair the Premises and every part thereof. The current conditions present safety, fire and general liability risks. Conditions that require corrective action include housekeeping and removal of debris, repair of paving, repair of roofing, and repair of plumbing.

Roof and Plumbing Repair and Alterations – On October 16, 1998, in response to a conversation regarding roof repair and plumbing in the bathrooms, we advised that per the Lease, Tenant is responsible for these repairs, (copy of letter attached). On June 4, 1999, Mr. Stone Lin called me to inquire about having PACCAR pay for repair of plumbing. He advised that the leak was more extensive than originally thought. He also inquired about making a plumbing alteration for an additional toilet. We reiterated that per the Lease, Tenant, at Tenant's expense is responsible for plumbing repairs. We advised that any alterations would require PACCAR approval. Tenant is requested to either have completed or have a plan for completing plumbing repairs at our visit on June 25th. We will also willingly review any plans for plumbing alterations at the same time.

Building Use – The Tenant continues to conduct operations involving machine tool assembly, painting and sewing not allowed under the terms of the lease. On August 20, 1996, you advised that the painting operation had been removed from the leased premises; however, on our visit on May 26, 1999, a painting operation appeared to be in use. On October 22, 1996, we transmitted a proposed amendment to you that would have modified allowed use to permit you to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale, (copy attached). This Lease amendment was never returned executed by Tenant. On May 26, 1999 painting, machine tool assembly and sewing operations appeared to be going on. The Premises was leased for the specific purpose of storage of shoes, umbrellas and other cloth material goods, and for no other purpose without the prior written consent of Landlord. (Paragraph 3.1). Tenant shall cease activities not allowed by the lease immediately.

P.O. Box 1518 Bellevue, Washington 98009 Telephone [illegible]
PACCAR Building [illegible] 108th Avenue N.E. Bellevue, Washington [illegible]

PACCAR appreciates having Dynateck America as a tenant and looks forward to remedy of defective conditions and non-allowed uses, and negotiation of new lease terms, as appropriate. Please arrange a representative to attend this inspection and meet with us. We would also like to discuss updating rent for this property relative to current market value. Please call me to confirm exact date and time for the visit (425) 468-7519).

Very truly yours,

Dan Lewis 6/14

Daniel N. Lewis
Director of Corporate Services

DNL:

Enclosures – Photos taken May 26, 1999
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Letter transmittal of Ammendment 2 to Dynatech dated October 22, 1996
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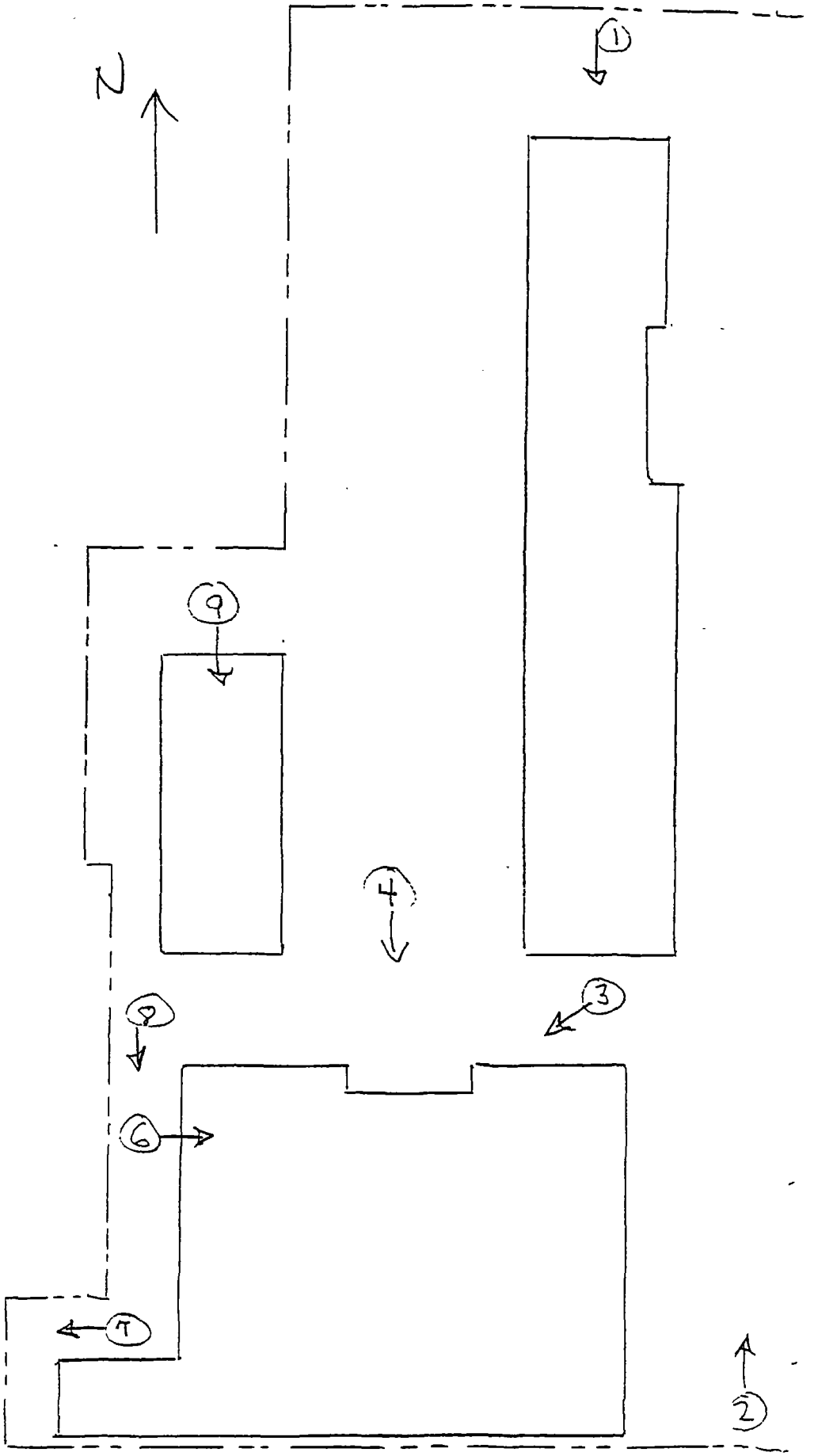
cc: R.E. Bangert, PACCAR
Phillip E. Gladfelter, PACCAR



NOT TO SCALE

Photo Legend

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Torrence, CA.
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First American Title Company of L

THIS MAP MAY OR MAY NOT BE A SURVEY
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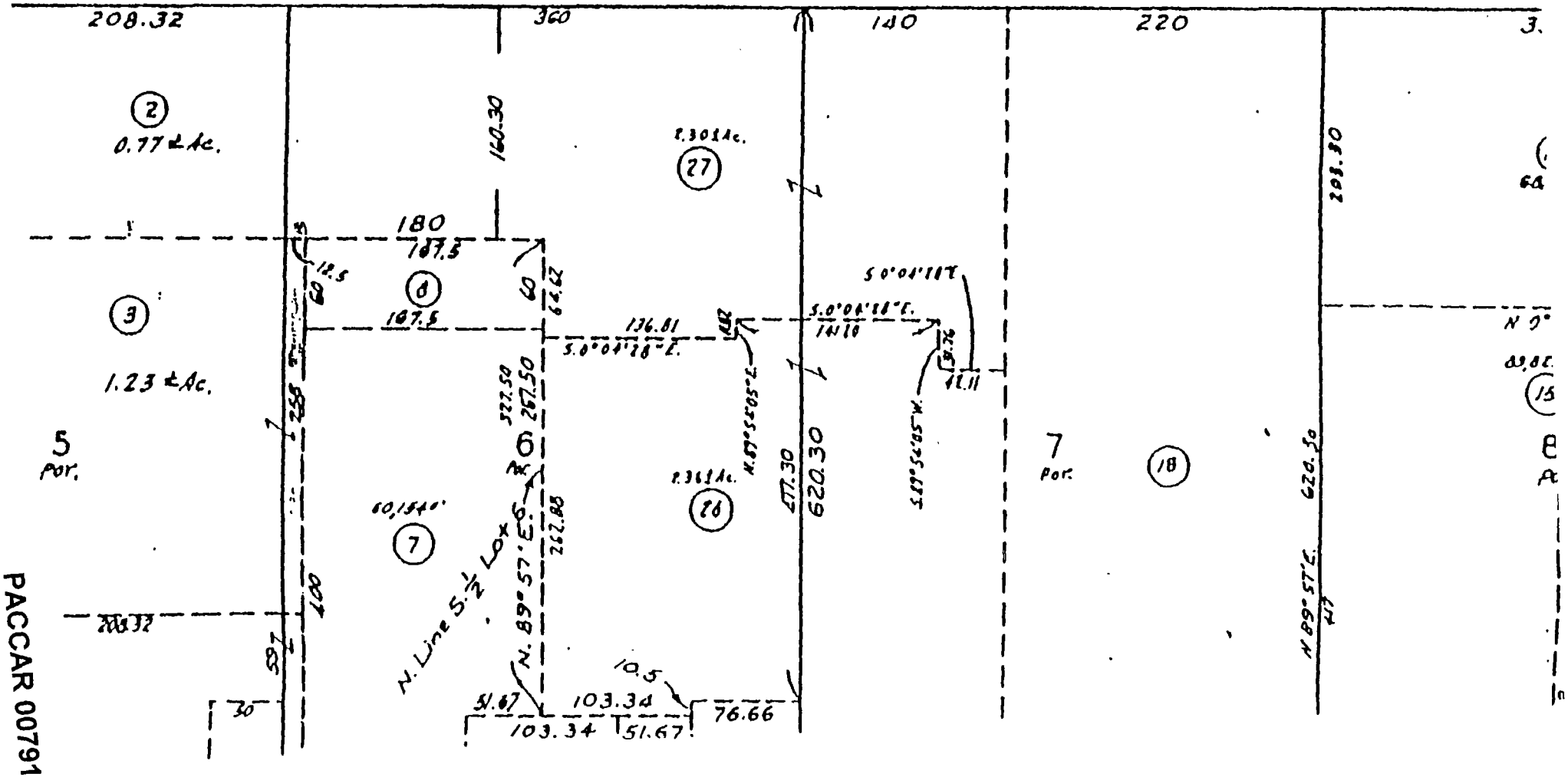

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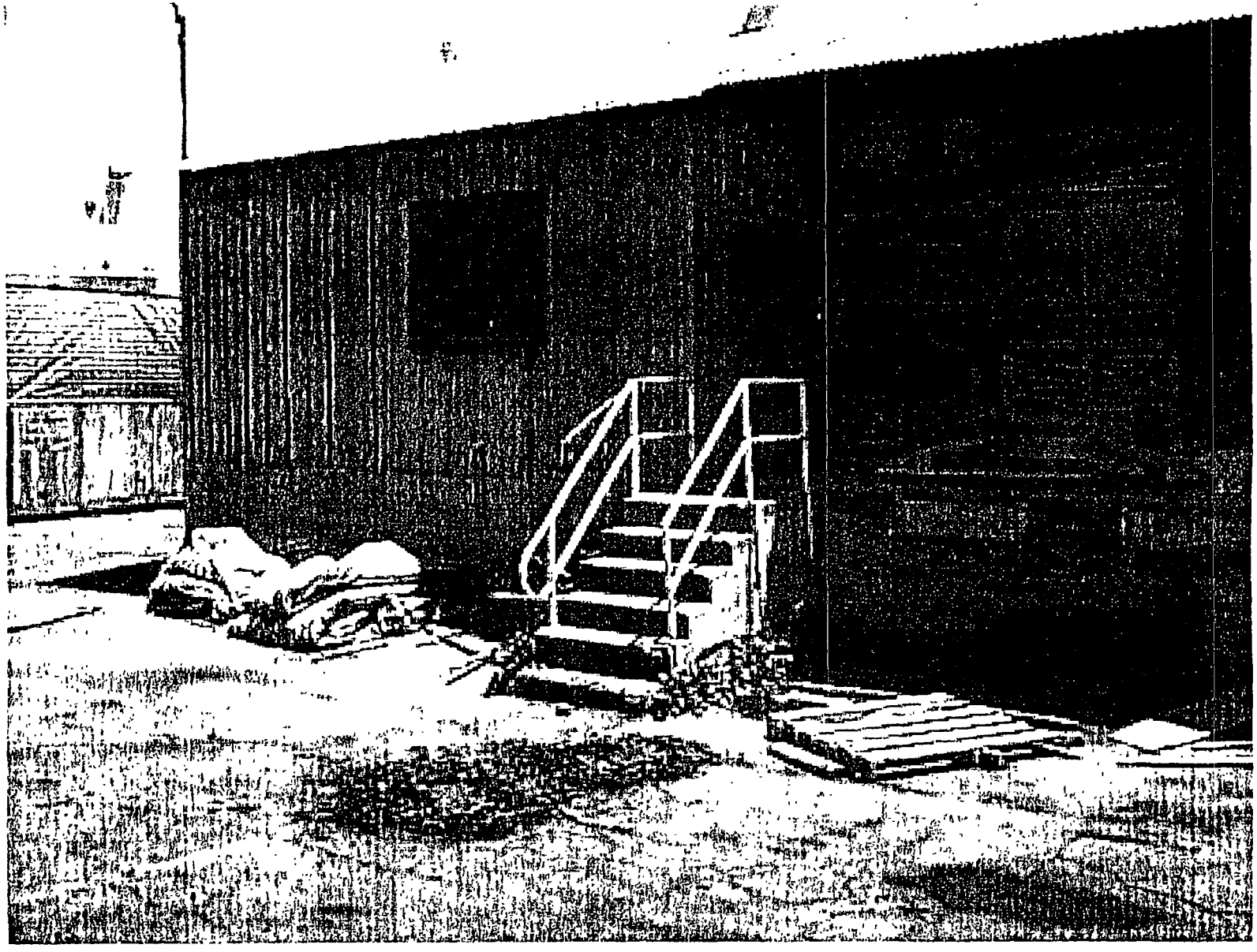
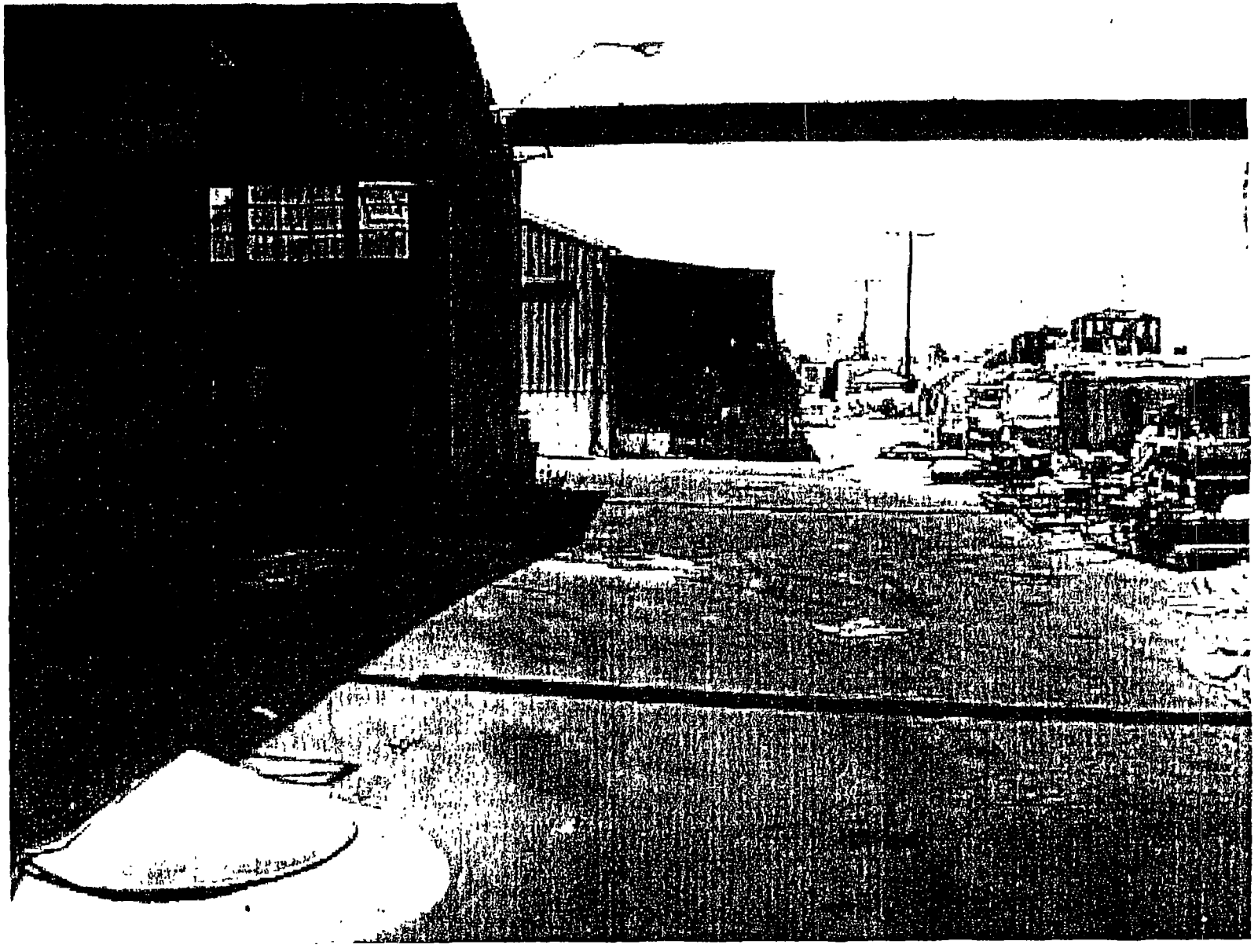
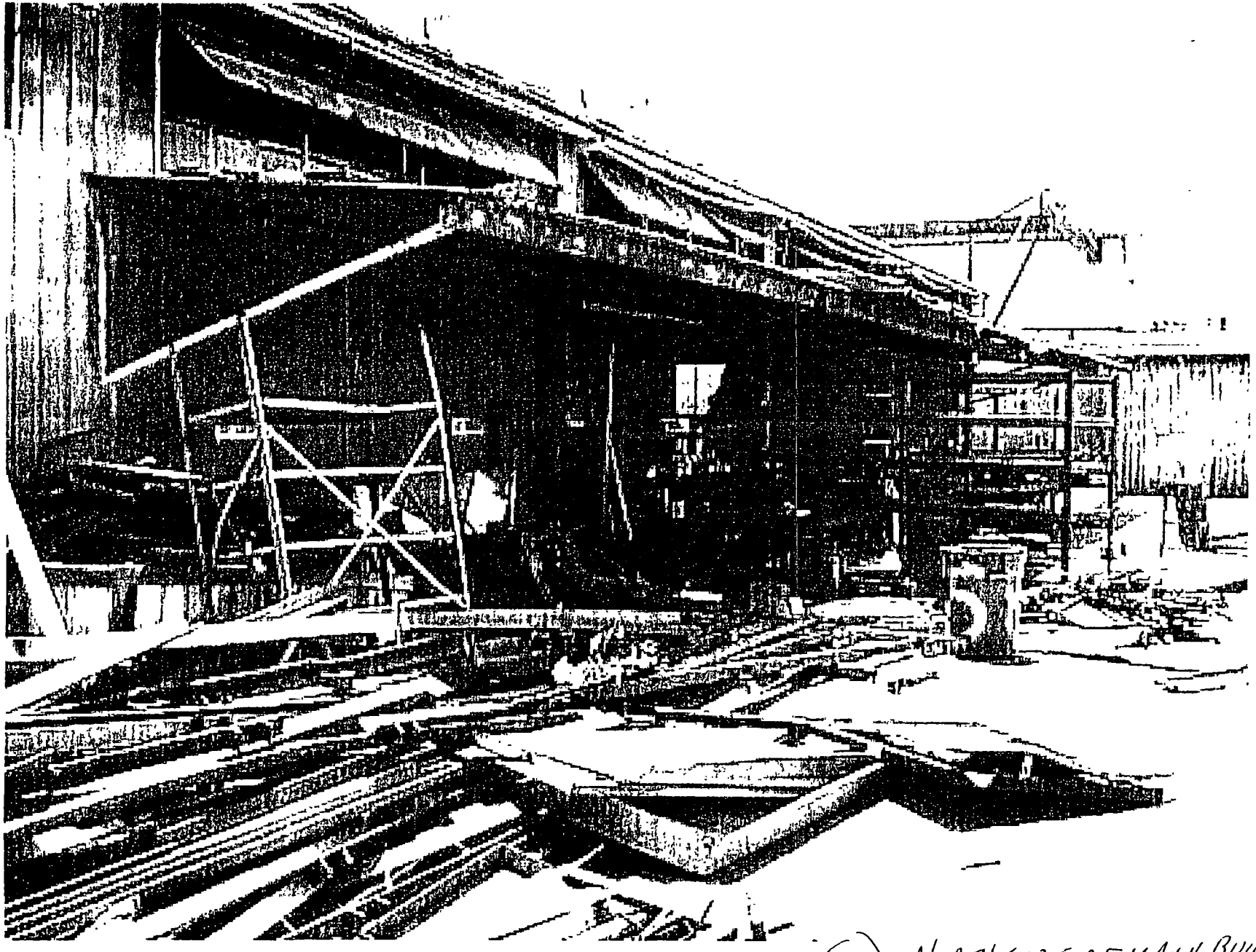


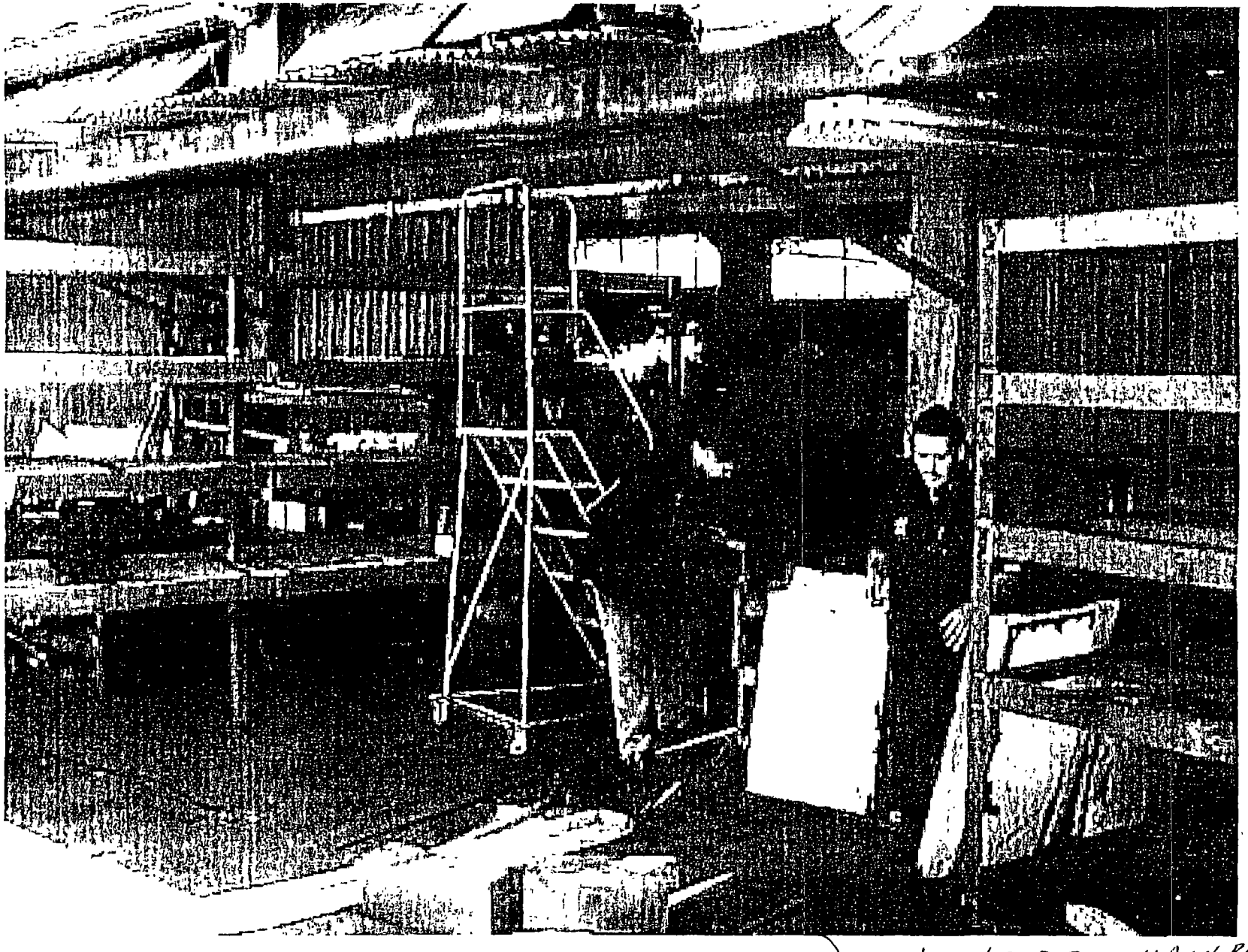
(1) NORTH END OF WAREHOUSE
5/20/99



(2) EASTERN EDGE OF PROPERTY
5/26/99



(3) NORTH SIDE OF MAIN BUILDING
5/26/99



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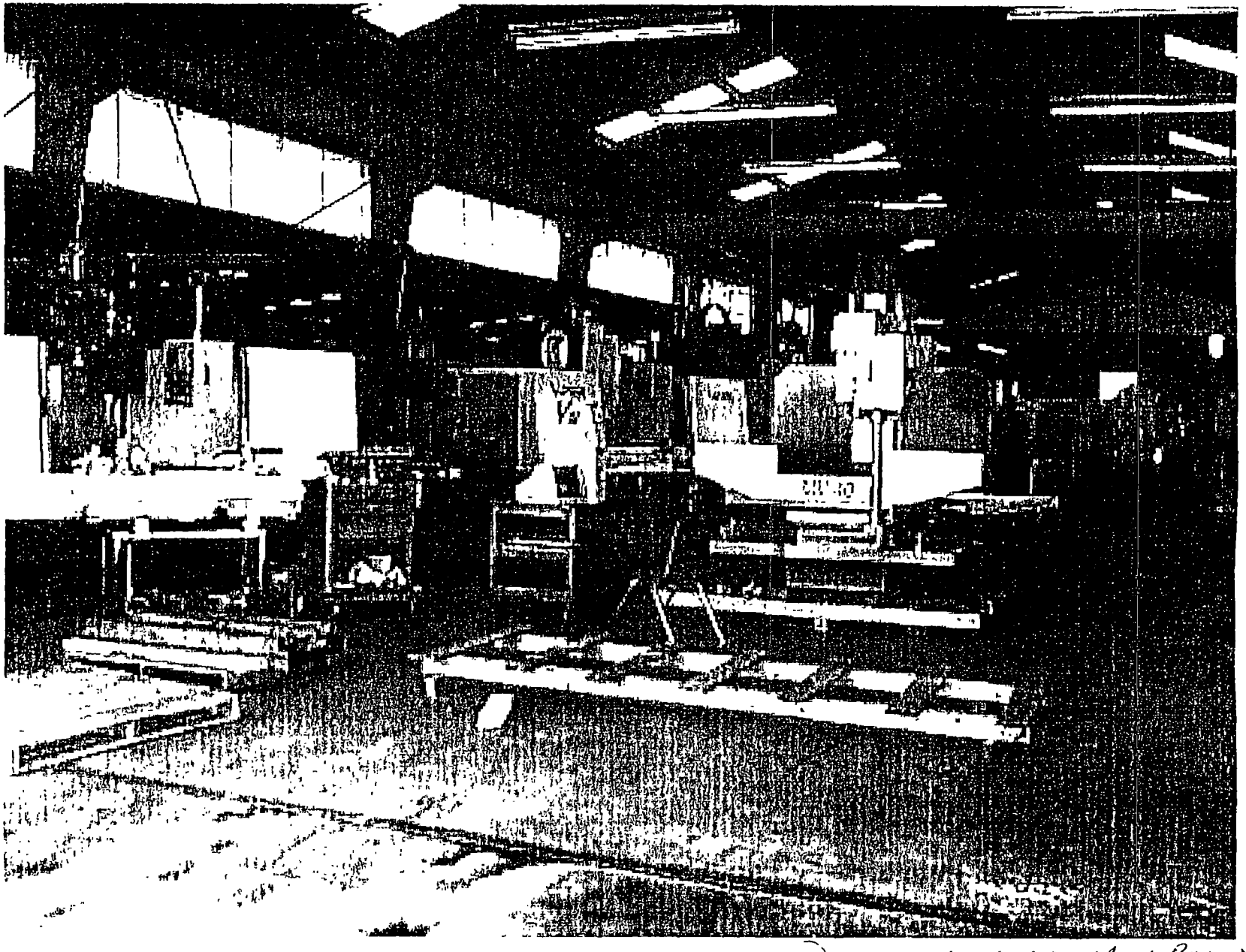
(5) UNKNOWN LOCATION
5/26/99



(9) INTERIOR OF MAIN BUILDING
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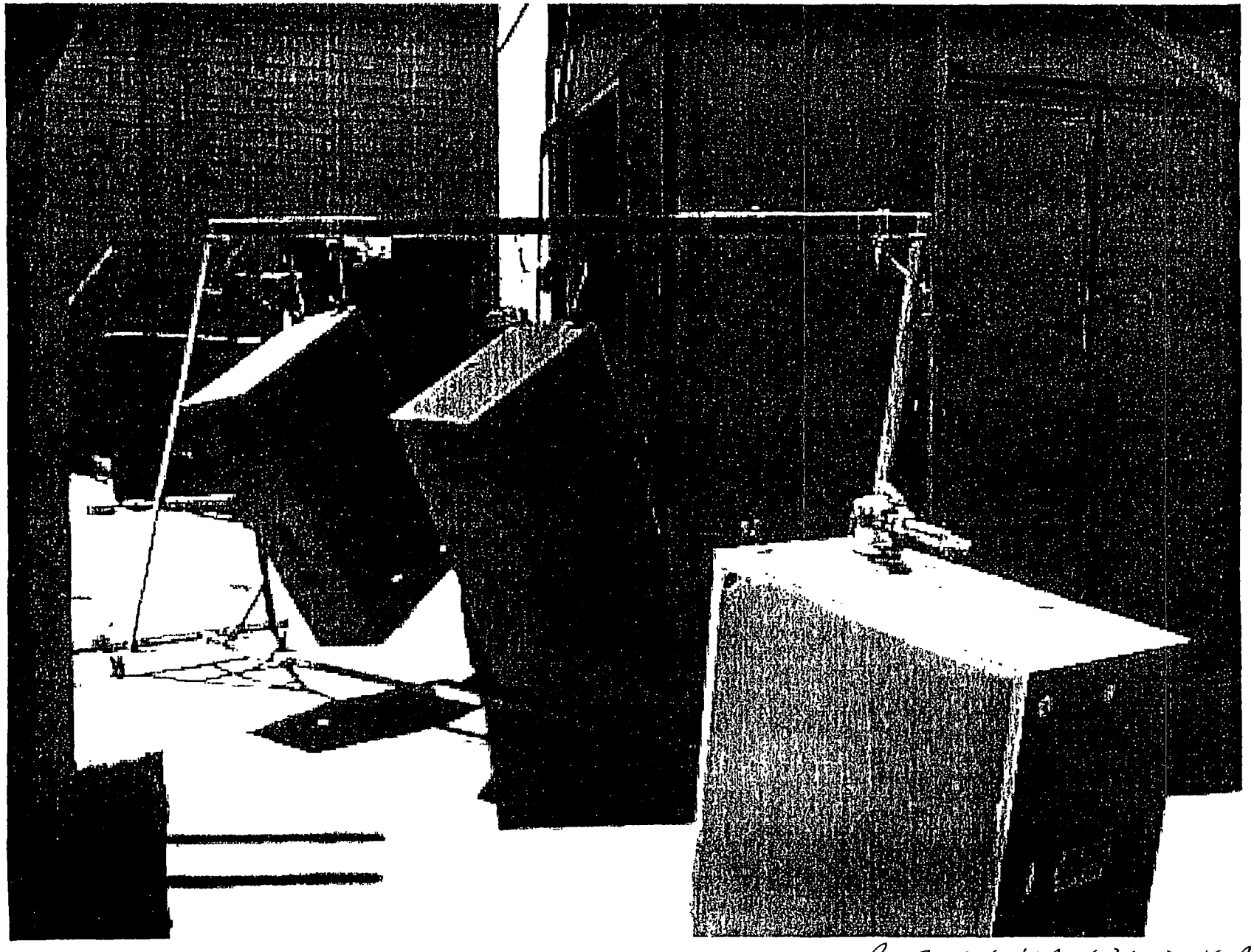

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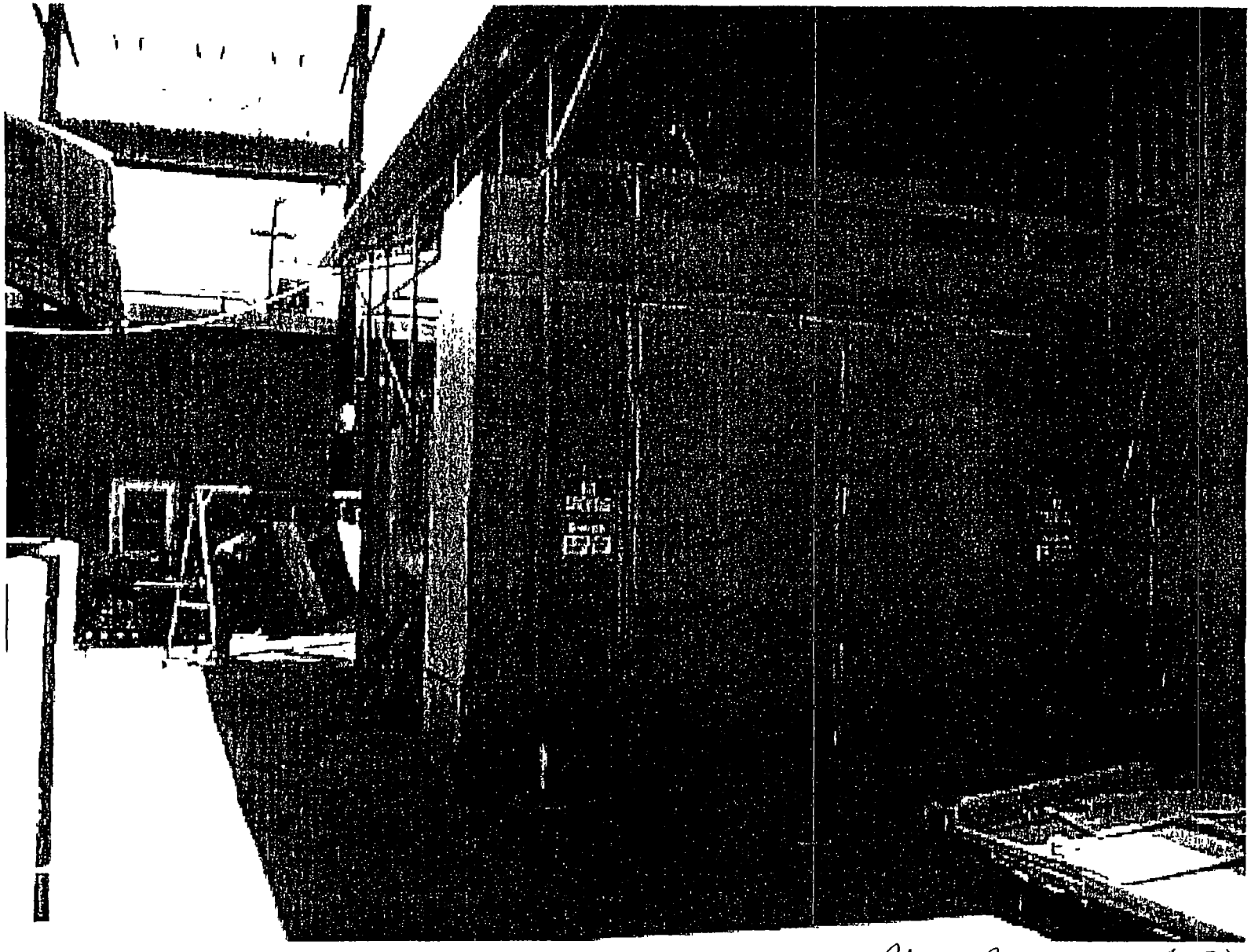

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PAINT BOOTH LOCATED AT OR ON LINE DIVIDING TSAI'S PROPERTY FROM PACCAR'S. (TSAI ON RIGHT)
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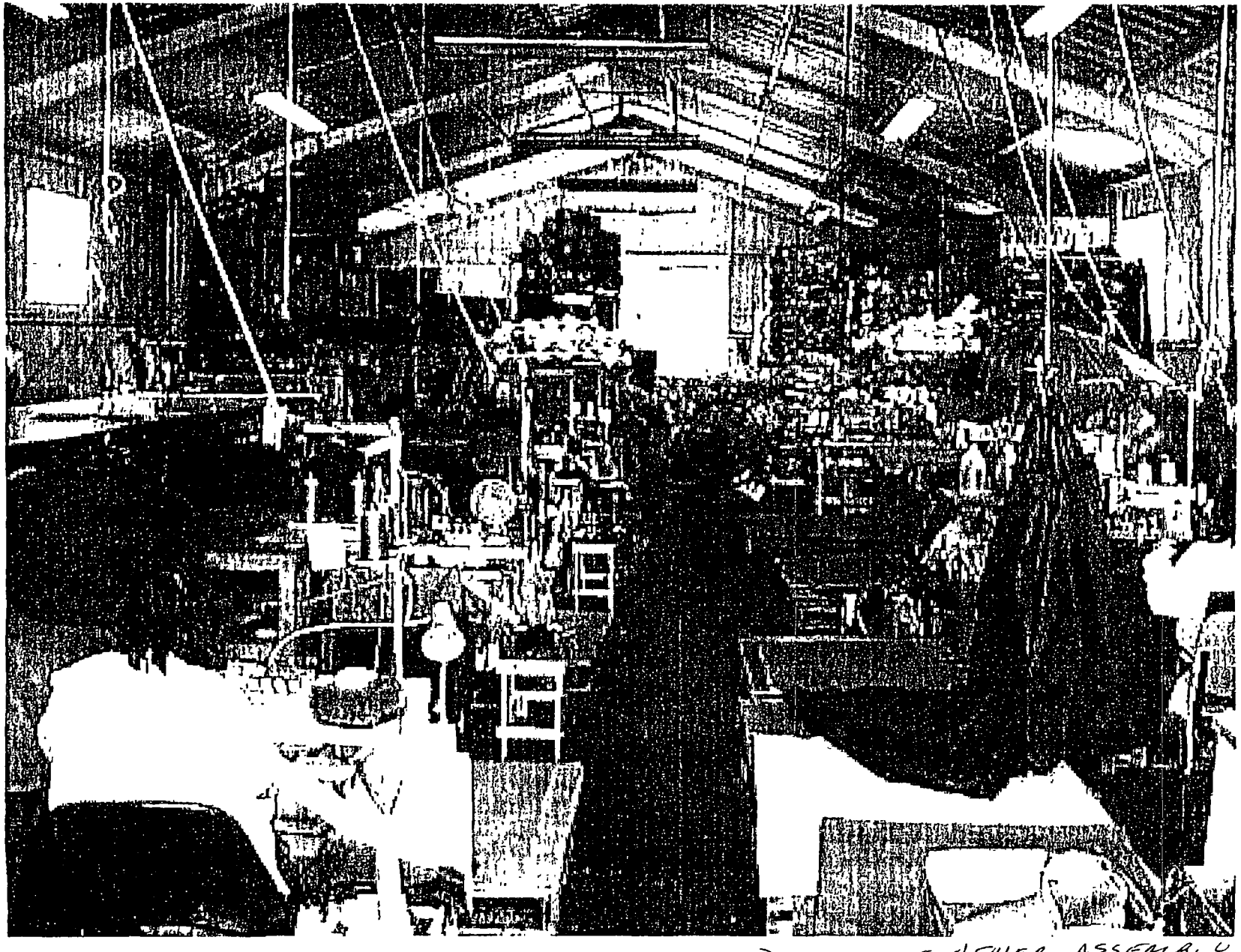


(9) INSIDE NEWER ASSEMBLY BUILDING. 5/26/99

JUL 26 1999

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

Peter Tsai's Lawyer

JUL - 1999

Date: July 26, 1999

cc: D.N. Lewis
FYI - For your trip next week!

To: Mr. Phil Gladfelter Fax No. (425) 468-8228

From: David Gurewitz 7-27-99 Fax No. (310) 546-4497

Re: 1206 West 196th Street File No. 4009

Number of pages sent 3 including cover page.
If transmission is incomplete please call (310) 545-5696.

NOTICE OF CONFIDENTIALITY

The pages comprising this facsimile transmission contain confidential information from David M. Gurewitz, Attorney at Law. This information is intended solely for use by the individual or entity named as the recipient hereof. If you are not the intended recipient, be aware that any disclosure, copying, distribution, or use of the contents of this transmission is prohibited. If you have received this transmission in error, please notify us by telephone immediately so we may arrange to retrieve this transmission at no cost to you.

ATTACHMENT:

A letter dated July 26, 1999 from David M. Gurewitz.

cc: RE Bangert
RK Butler
H G Kaplan

pse ok + advise PEG

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

July 26, 1999

By Fax (425) 468-8228 and US Mail

Mr. Phil E. Gladfelter
Corporate Real Property Manager
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Re: ***My Client: Bonchester International, Ltd./Prospective Purchase of 1206 West 196th Street, Torrance, California***
My File No. 4009

Dear Phil:

Confirming our telephone conversation of July 22nd, 1999, please be advised that Bonchester International, Ltd. has a renewed interest in purchasing the property at 1206 West 196th Street, Torrance, California (the "Property"). I have determined that in order to assist the client, retaining new environmental legal counsel to address the client's concerns is appropriate. Accordingly, the client will be retaining Kelley Drye & Warren, LLP as environmental counsel. In connection with such retention, I would like to provide them with copies of reports you have previously provided me with respect to the Property which are in my possession. I asked you for permission to do so on July 22nd, and you requested that I write you this letter seeking consent to such. Please sign below acknowledging Paccar's agreement that I may turn over to Kelley Drye & Warren, LLP environmental reports in my possession with respect to the Property.

I understand and agree with your statement to me that we should pick up our negotiations from where we left off. However, I am uncertain how long it will take Kelley Drye & Warren to review materials and assess the situation, but am hopeful that a proposal to Paccar would be forthcoming in approximately 10 days. In any event, I will

\4009\Gladfelter

calendar my file to call you in 10 days to advise you of the status of getting a proposal to you, in the event I have not sent you a proposal by then.

Very truly yours,

David M. Gurewitz

DMG/dlr
cc: Mr. Eric Harold
Bonchester International, Ltd.

The undersigned, on behalf of Paccar Inc., consents to David Gurewitz distributing to Kelley Drye & Warren, LLP copies of environmental reports respecting the Property in the possession of David Gurewitz.

Philip E. Gladfelter
Corporate Real Property Manager

\4009\Gladfelter

File

P 024 607 399

PACCAR Inc

Certified Mail
Return Receipt Requested

August 5, 1996

Mr. Peter Tsai
Dynateck America, Inc.
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrance, CA 90502

Re: 1206 West 196th, Torrance, CA
Lease Dated September 15, 1993, As Amended

Gentlemen:

This re-transmits my enclosed letter of June 7, 1996, to which we have received no response.

I queried attorney Gurewitz whether he had received any instructions from you to become involved. He recently advised that, although he had notified you that he was aware of our letter, he has received no request from you to become involved in this matter.

We look forward to your response to our June 7 letter by August 15.

Very truly yours,

Phillip E. Gladfelter
Corporate Real Property Manager

PEG:ldr
PEG96209.DOC

Enclosure

cc: David Gurewitz, Esq., Gurewitz & Lieb
(10780 Santa Monica Blvd, Suite 350, Los Angeles, CA 90025)
Roger Pettitt, Esq., Brant & Pettitt
(626 Wilshire Blvd, #410, Los Angeles, CA 90017)
R. E. Bangert, II
J. Dunavant (3040 E. Slauson Ave, Huntington Park, CA 90253)
L. Sims
R. A. Hoel

P.O. Box 1518 Bellevue, Washington 98009 Telephone (206) 455-7400
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004

PACCAR Inc

June 7, 1996

Certified Mail
Return Receipt Requested

Mr. Peter Tsai
Dynateck America, Inc.
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrance, CA 90502

Re: 1206 West 196th, Torrance, CA
Lease Dated September 15, 1993,
As Amended

Gentlemen:

On May 24, 1996, representatives of Trico inspected the properties leased by Trico to others in the Los Angeles area, including your above property. A copy of the notes pertinent to the inspection of your leasehold at Torrance is attached. As you are aware, Trico is a wholly owned subsidiary of PACCAR Inc.

Among the conditions noted in that inspection are several matters which we regard as very troublesome under our lease. We will discuss them next.

Notwithstanding the limited purposes for which the lease was granted in Section 3.1 ("storage of shoes, umbrellas and other cloth material goods, and for no other purpose") the Tenant is conducting a painting operation, with associated materials, and a sewing operation on the premises.

The painting operation raises questions under Sections 3.3 and 3.4 of the Lease (dealing with hazardous substances), including the requirement that Tenant give notice immediately to the Landlord of use thereof on the premises (these would clearly include paint and paint solvents).

P O Box 1518 Bellevue, Washington 98009 Telephone (206) 455-7400
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004

Second, the outside storage activities east of warehouse building are at least messy, and may constitute a nuisance or increase risks of fire. Under Section 4(a) of the Lease, the Tenant is required to keep the premises and every part thereof "in good order, condition . . ." including "all landscaping, driveways and fences".

Lastly, the storage of an auto on the property, depending on the circumstances, may also exceed the permitted use under the Lease.

In connection with any Tenant default under the Lease, the Lessor may, among other things, recover its attorneys fees. When a default occurs, the Landlord can pursue its various remedies contained in the Lease, including curing the Tenant's default at the Tenant's expense (Section 4(b)), including by application of the security deposit (Section 2.2) which the Tenant is then obligated to restore to its original amount.

At the moment, without prejudice to any of Trico's remedies, Trico has concern that the following curative action be taken promptly.

1. Tenant cleanup the outside storage area between the warehouse building and east property line fence so that outside storage is properly contained, and no debris or loose materials are lying about.

2. Tenant at its expense promptly furnish to Trico an environmental inspection report concerning Tenant's painting activities, conducted by a qualified independent consultant, as contemplated by Section 4(b), and carry out any corrective activity required by such report and by Trico.

3. Tenant cease use of the premises for painting and sewing operations, or negotiate an amendment acceptable to Trico to Section 3.1 of the Lease, permitting such activities.

We ask that you direct any correspondence regarding this matter to the undersigned, with copies to the individuals shown as copy recipients of this letter.

We look forward to Tenant's prompt attention to these matters.

Very truly yours,

Phillip E. Gladfelter
Corporate Real Property Manager

PEG:ldr
PEG96159.DOC

Enclosure - Trico Premises Inspection Report, May 22, 1996

Copies to:

Roger Pettitt, Esq., Brant & Pettitt
(626 Wilshire Blvd, #410, Los Angeles, CA 90017)
R. E. Bangert II/L. Sims, PACCAR Inc (P.O. Box 1518, Bellevue, WA 98009)
R. Litschi, Trico Industries, Inc.(2503 Hunter Rd, San Marcos, TX 78666)
J. Dunavant, Trico Industries, Inc. (3040 E. Slauson Ave, Huntington Park, CA 90253)
R. A. Hoel, PACCAR Inc (P.O. Box 1518, Bellevue, WA 98009)

PACCAR Inc

CERTIFIED

August 5, 1999

Mr. Peter Tsai
Dynatech of America
19706 South Normandie Avenue
Torrence, CA 90502

Dear Sir:

I enjoyed meeting with you August 3rd, 1999 during my visit and inspection of the property leased by Dynatech of America from PACCAR Inc at 1206 West 196th Street in Torrence, California. Our realtor, Mr. John Carver, your realtor, Mr. Eric Herold, and your plant staff, Dennis and Henry, attended the inspection. Following are inspection and meeting notes. Copies of photos taken during the visit are attached. In general, the property appears significantly improved from the last visit in May 1999. Following are items noted as deficient and not in conformance with the lease agreement. Tenant is respectfully requested to remedy these items immediately.

General Cleanup – The area in a corner of the property along the west side, (Photo No. 29) contains a pile of metal and debris. The debris shall be removed and the area cleaned up.

Hazardous Materials – There is potentially hazardous material in drums (Photo No. 4), and in paint materials stored in a room (Photo 13) on the premises. This material shall be removed from the property.

Asphalt Paving Damage – The asphalt paving has significant damage, mostly along the eastside of the property. The extent of the damage appears worse than in the last inspection. The paving must be repaired.

Roof and Plumbing Repairs – During the visit it was noted that there are several roof leaks and that underground sewer piping from the lavatory in the main building has leaks. Per the lease agreement, Tenant is responsible for any repairs to remedy these problems.

Use of Premise – The Tenant continues to conduct operations involving machine tool assembly and sewing not allowed under the terms of the lease. On October 22, 1996 we transmitted a proposed amendment to you that would have allowed tenant to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale. Another copy of this amendment was provided to you during our meeting on August 3, 1999. Tenant shall either agree to a lease amendment allowing use or cease disallowed activities immediately.

During our meeting we discussed the general condition of the property and Tenant's intent with regard to long term use. You indicated that consistent with other recent correspondence from David Gurewitz that your associate at Bonchester International, Ltd has renewed interest in acquiring the property. You said that you would be retaining independent environmental counsel to address your concerns on August 3, 1999, and that Bonchester would be responding to PACCAR within two weeks. We look forward to that response. Please direct that response regarding acquisition to our Corporate Real Property Manager, Mr. Phil E. Gladfelter.

Very truly yours,

Dan Lewis P/S

Daniel N. Lewis

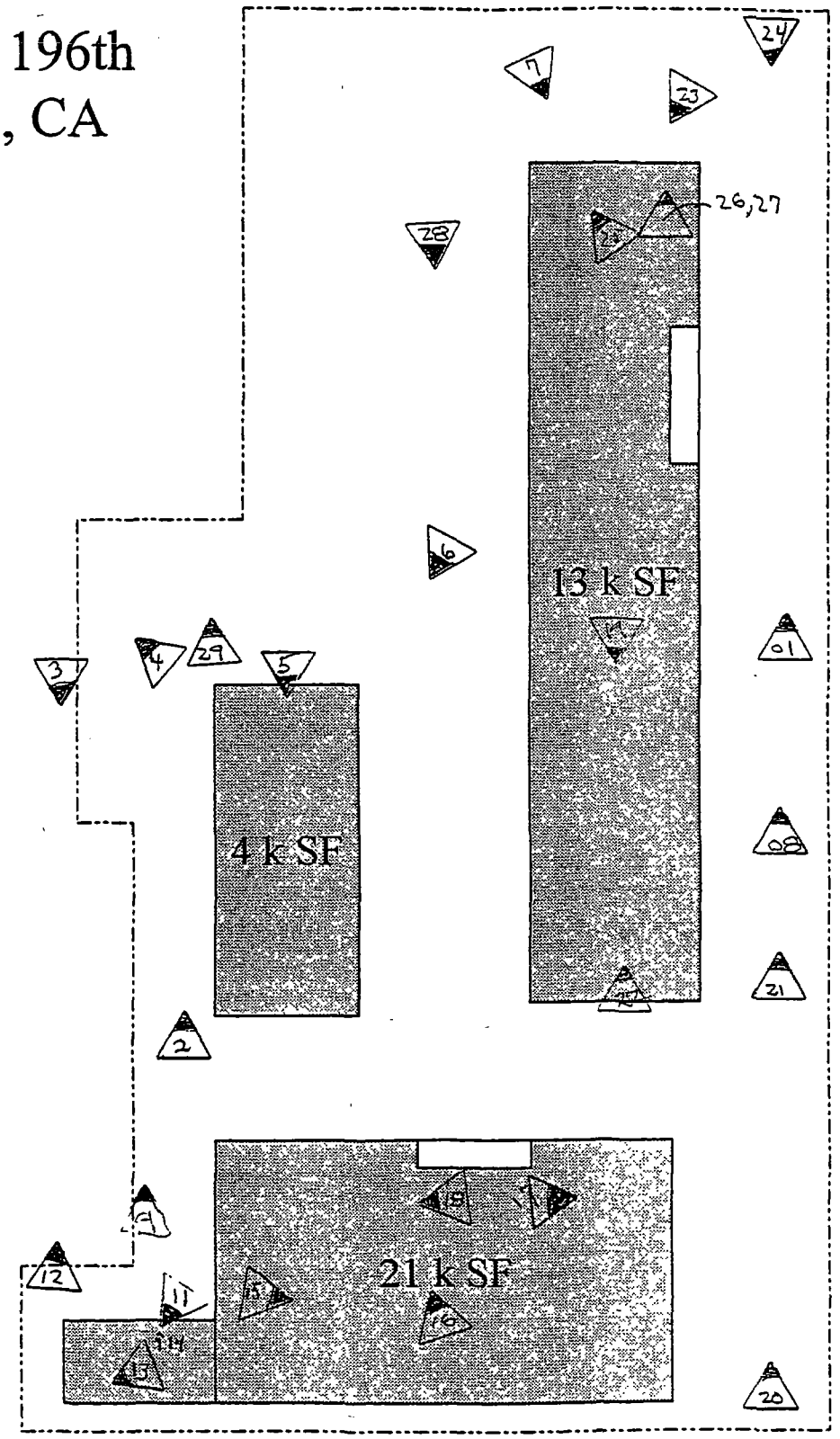
Director of Corporate Services

DNL:

Attachments

cc: R.E. Bangert II
Phil E, Gladfelter
File: 1206 West 196th, Torrence

1206 W. 196th
Torrence, CA



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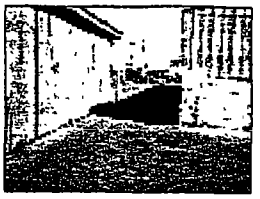

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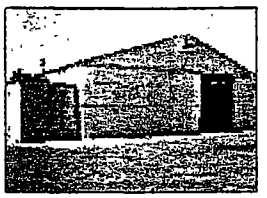

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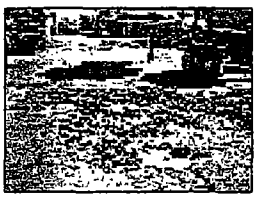

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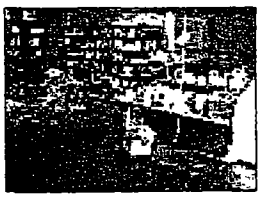

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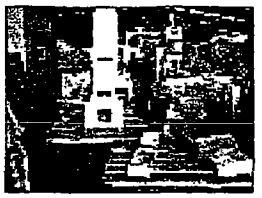

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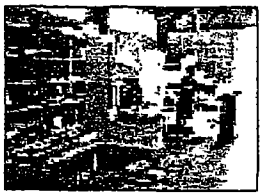

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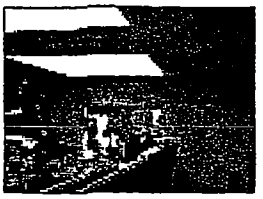

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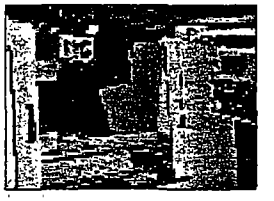

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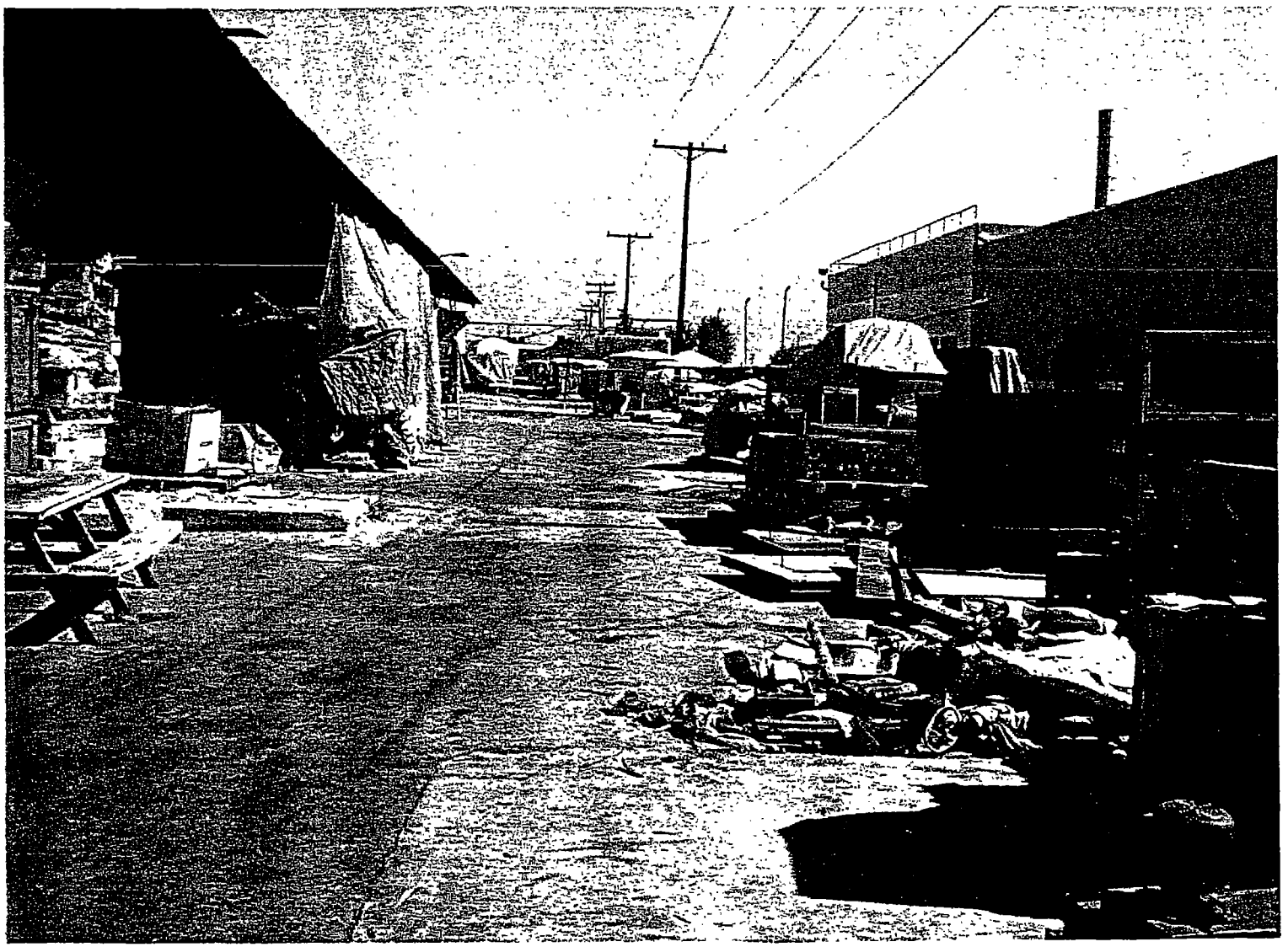

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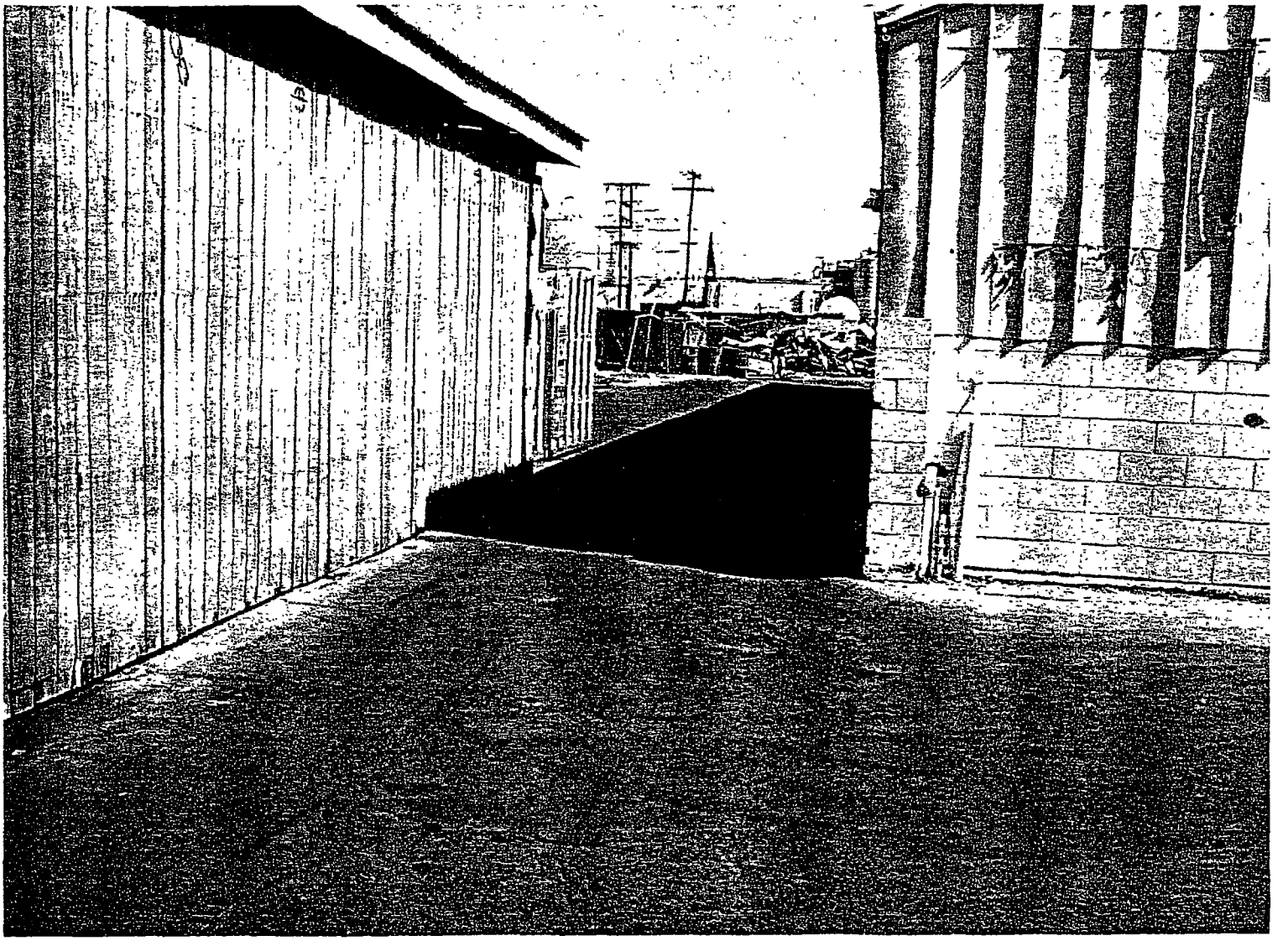

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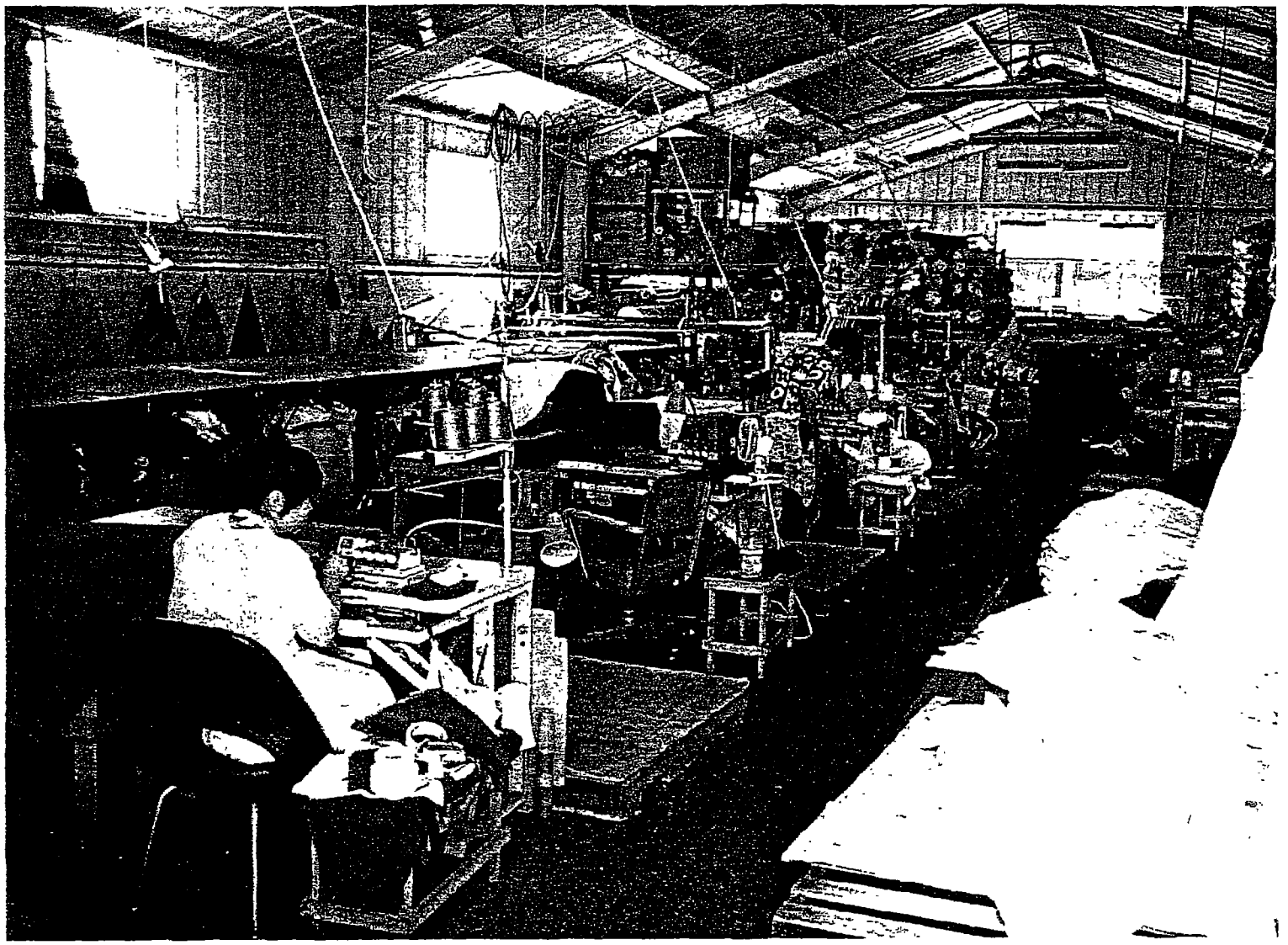

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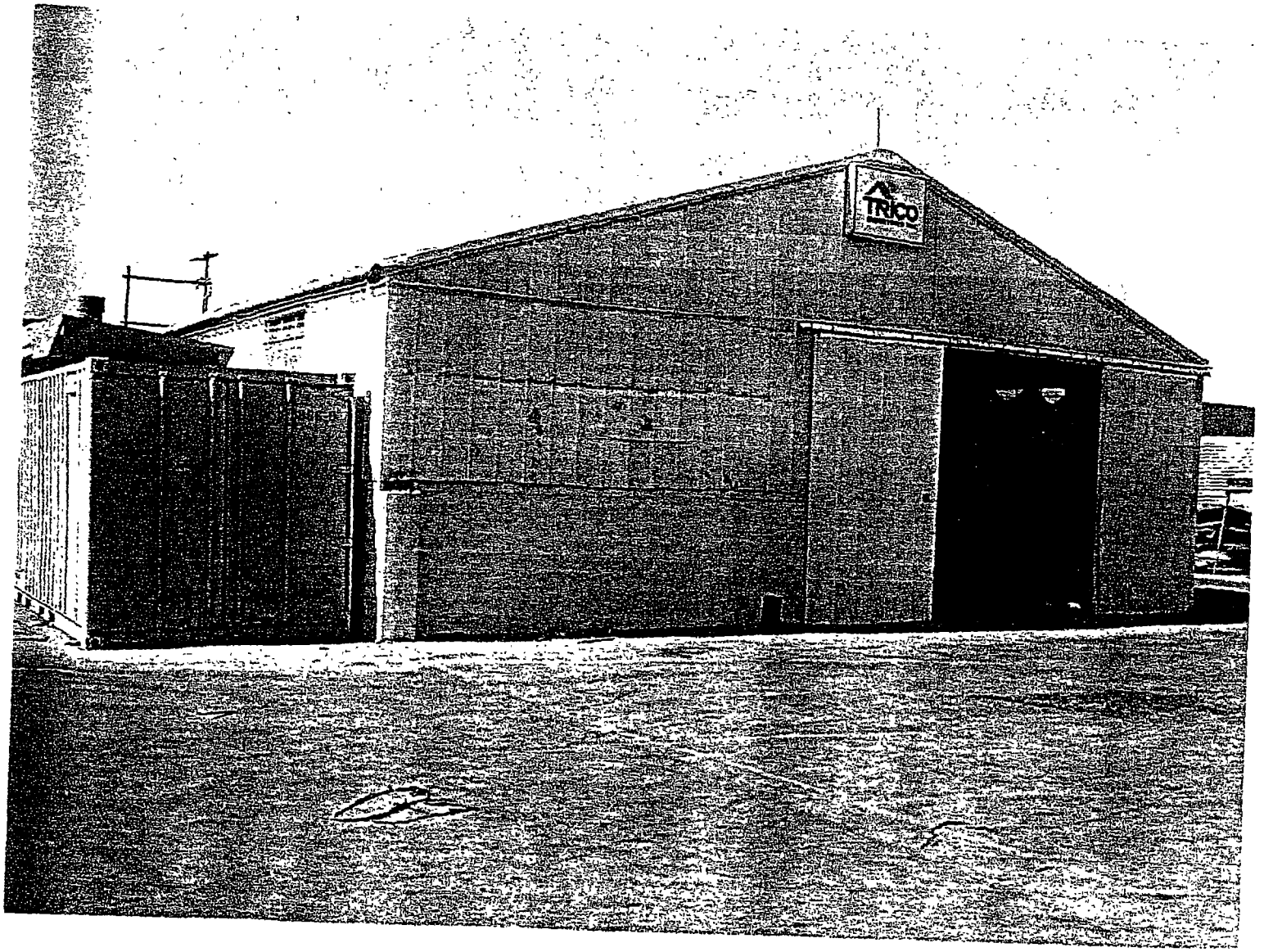

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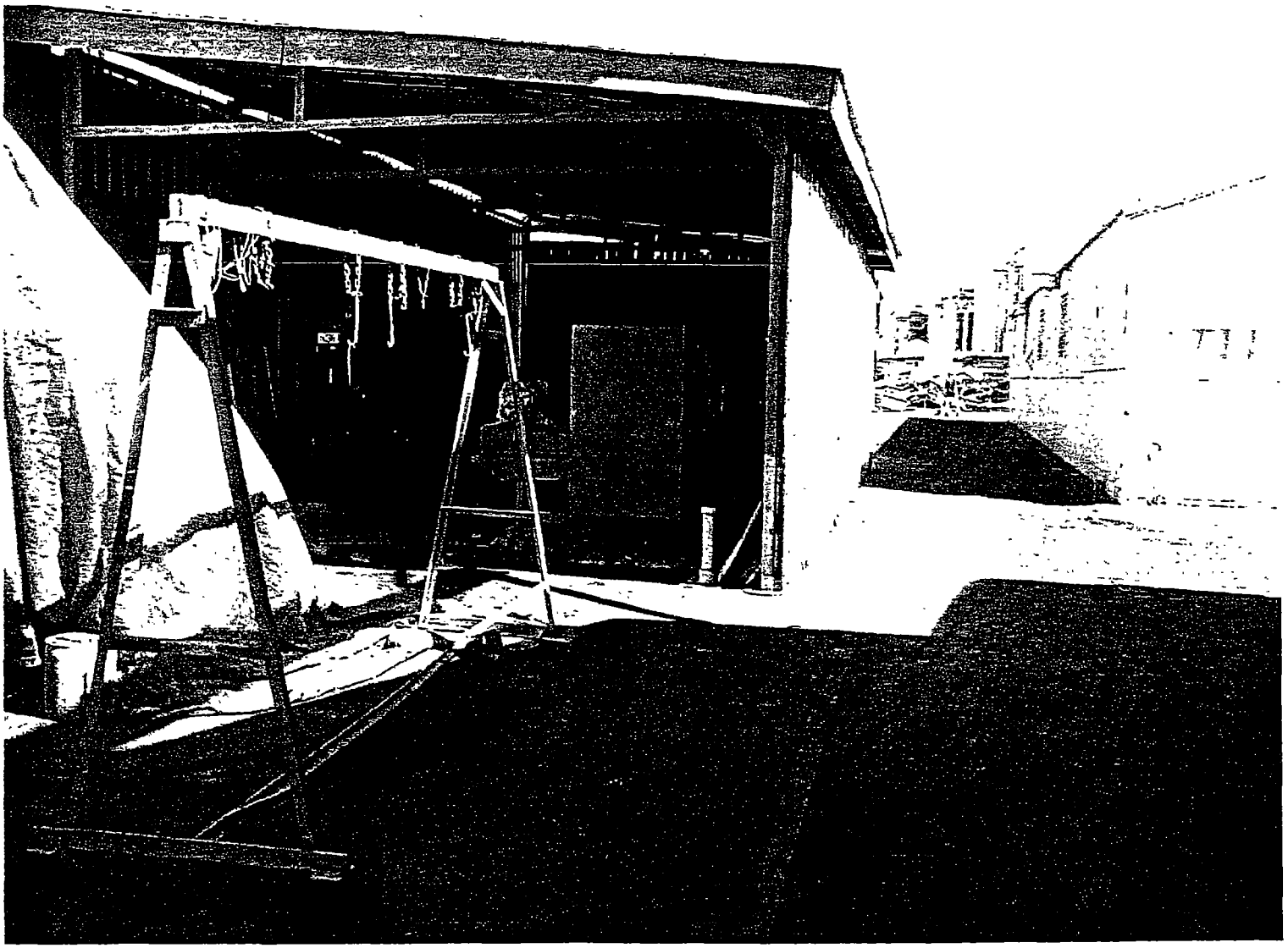

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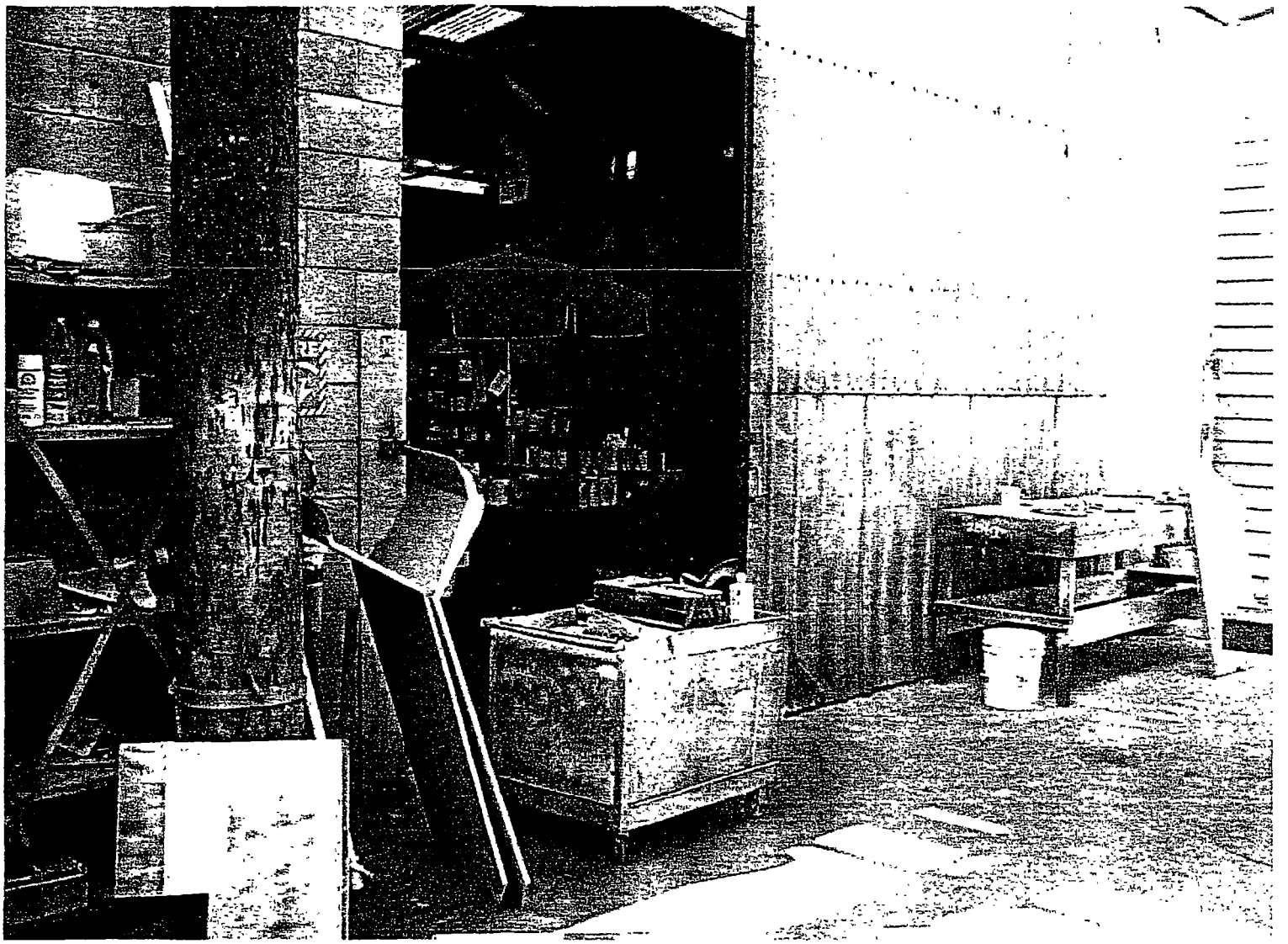

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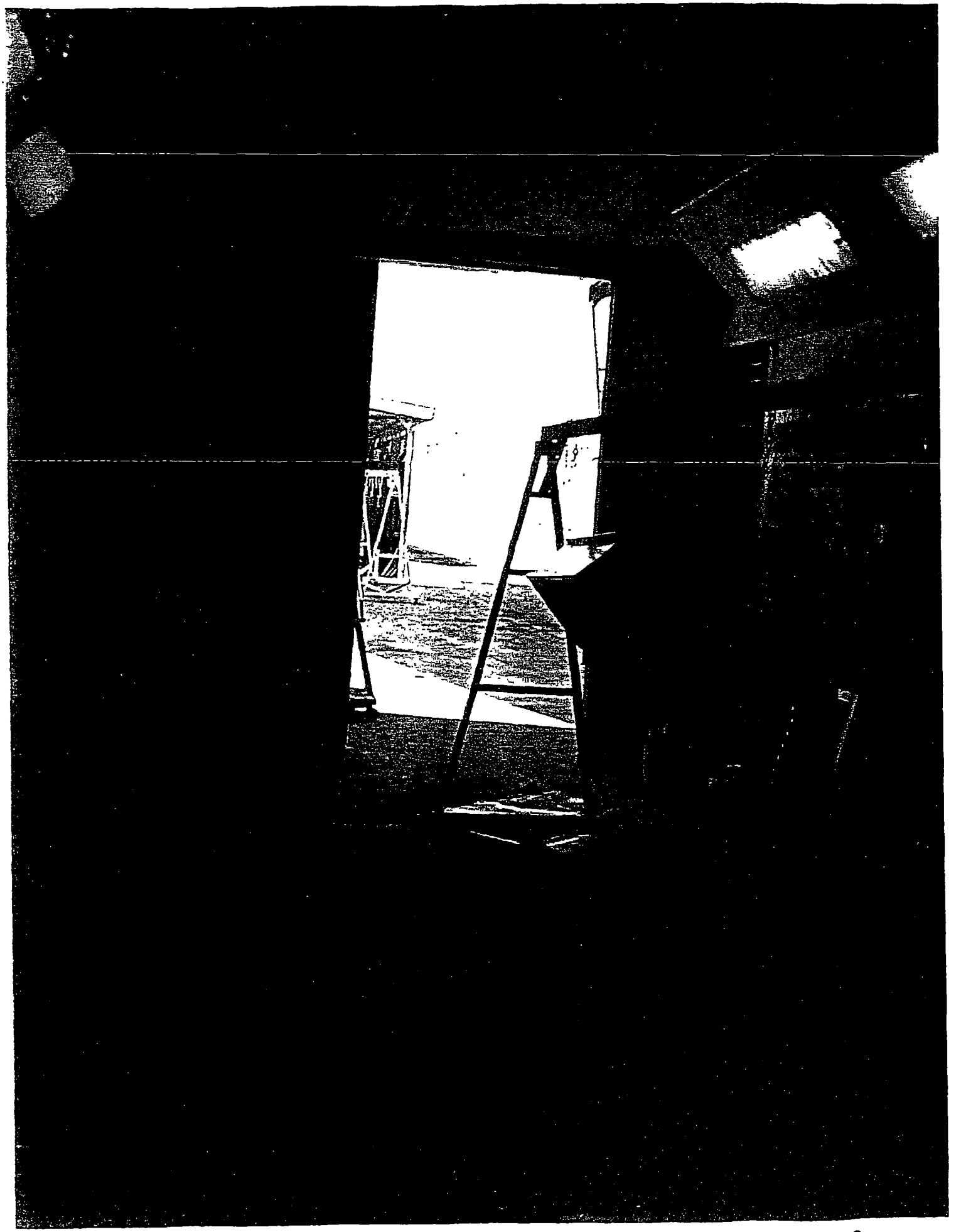

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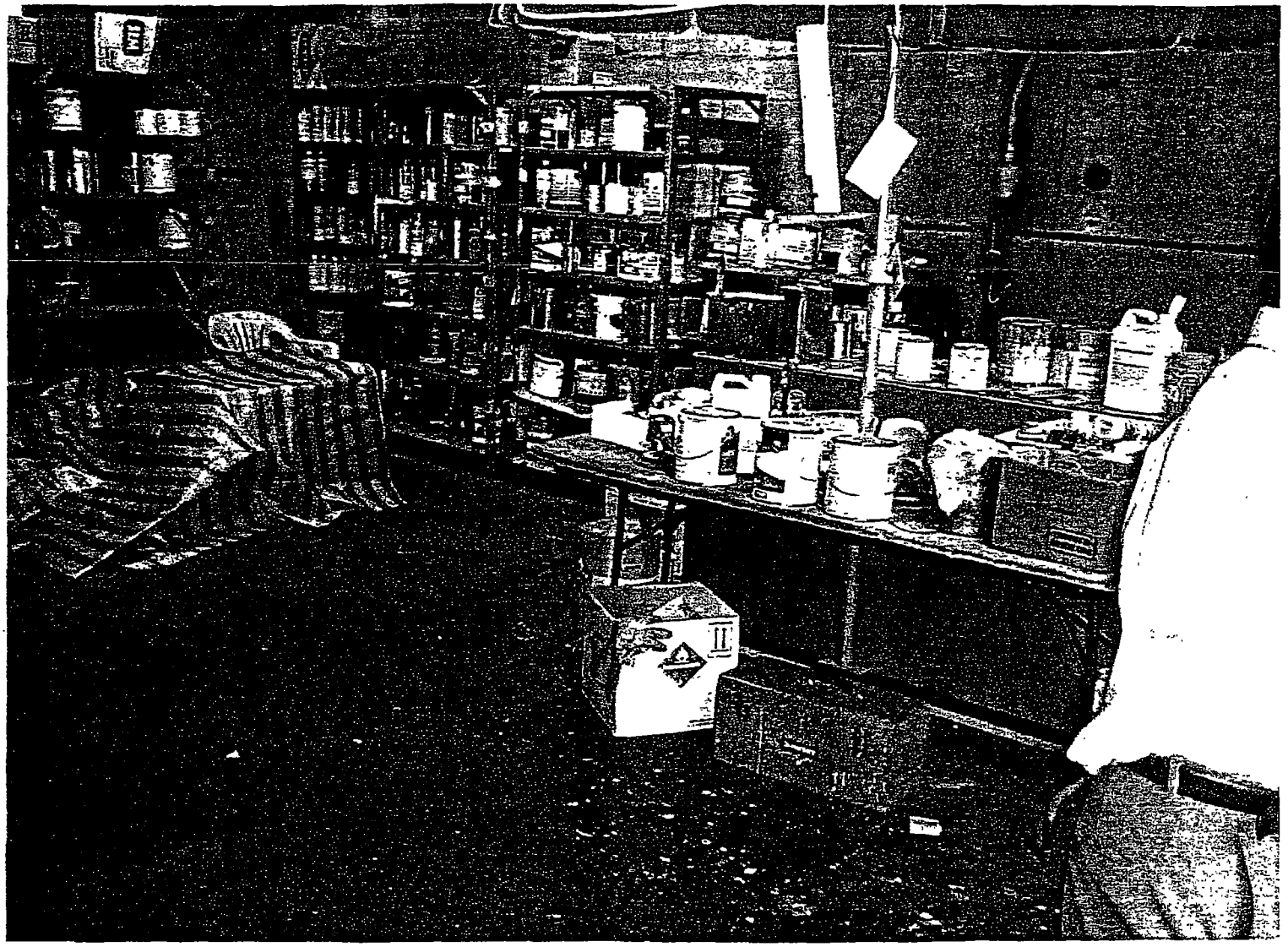

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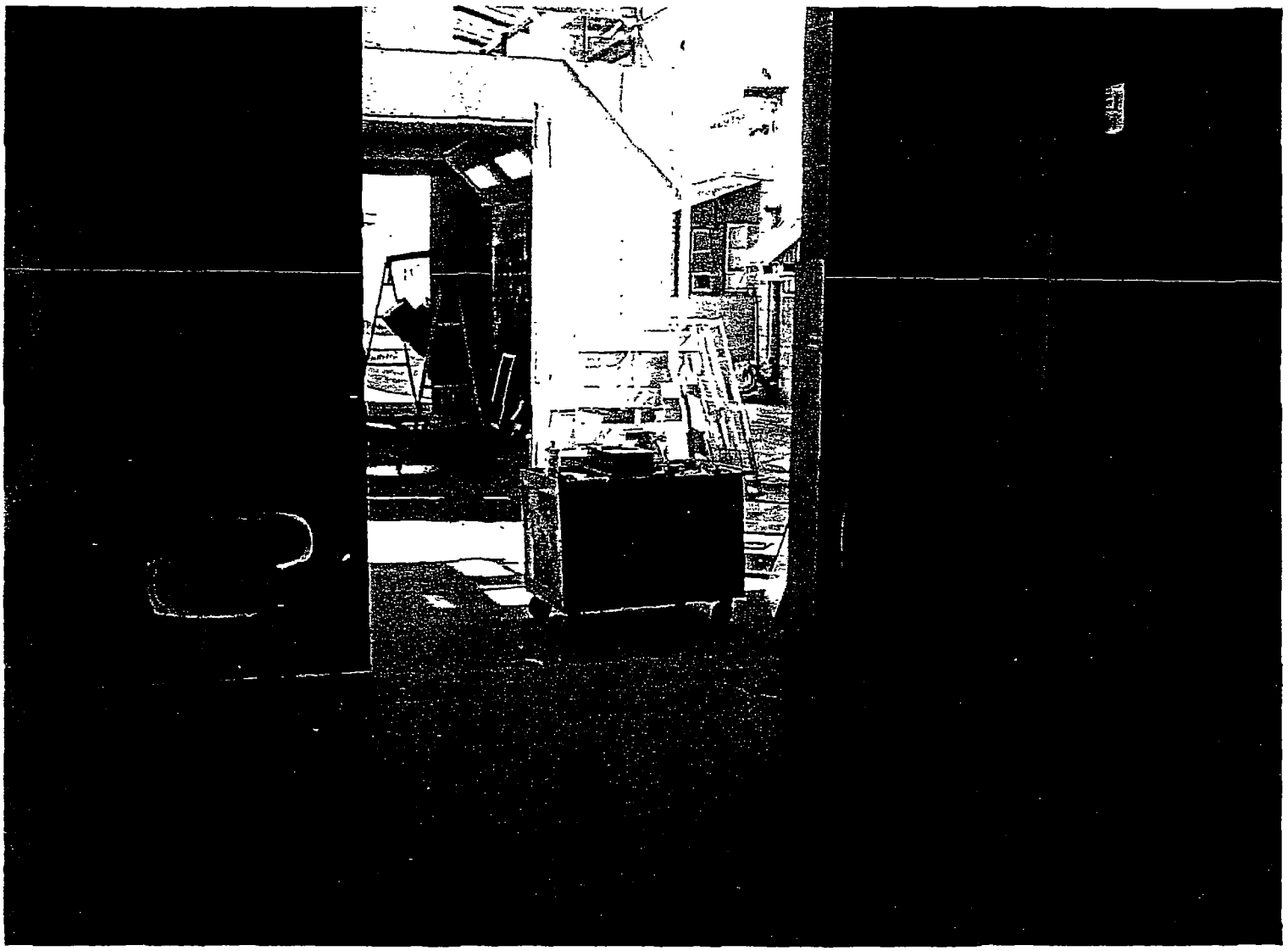

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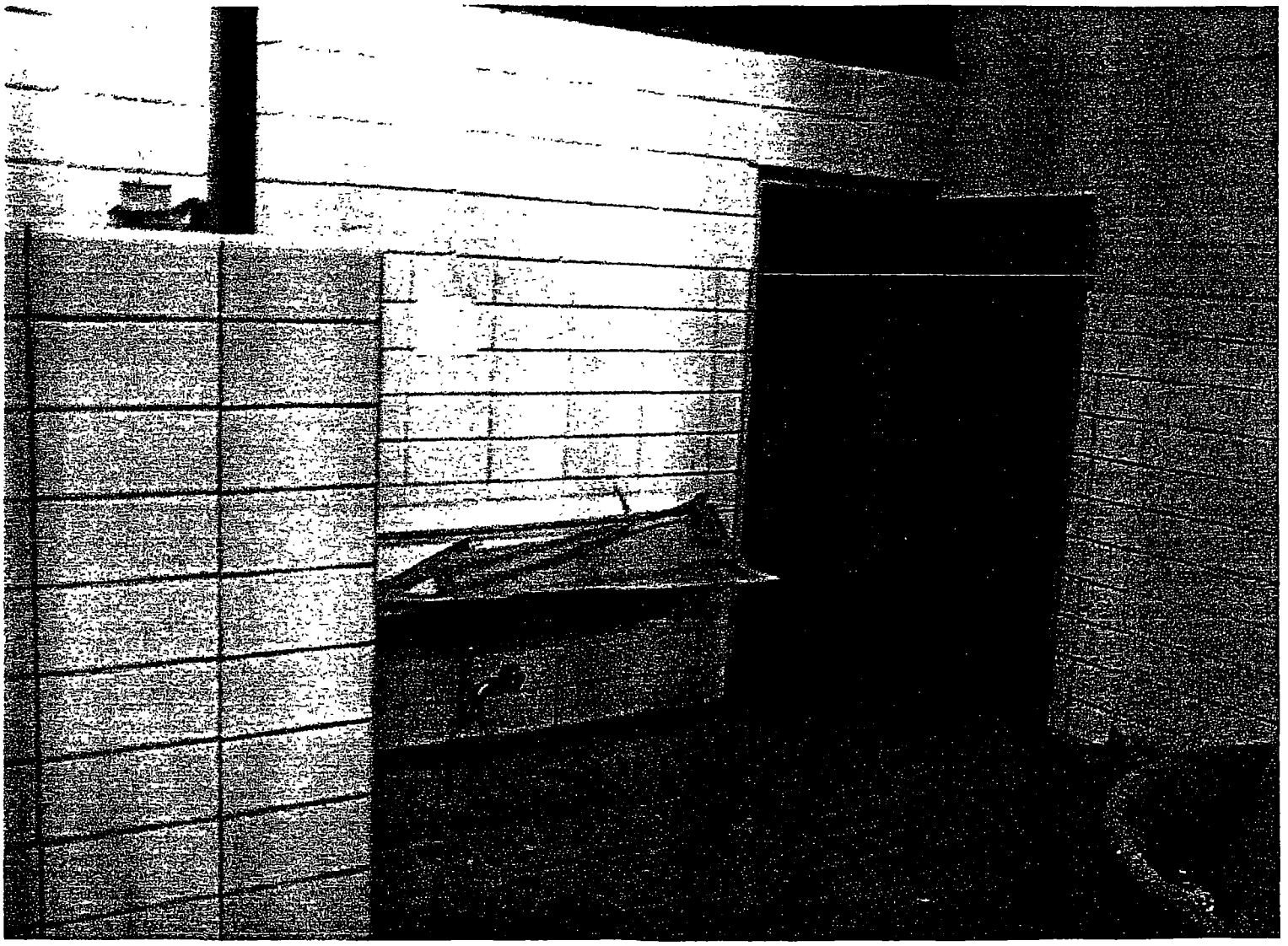

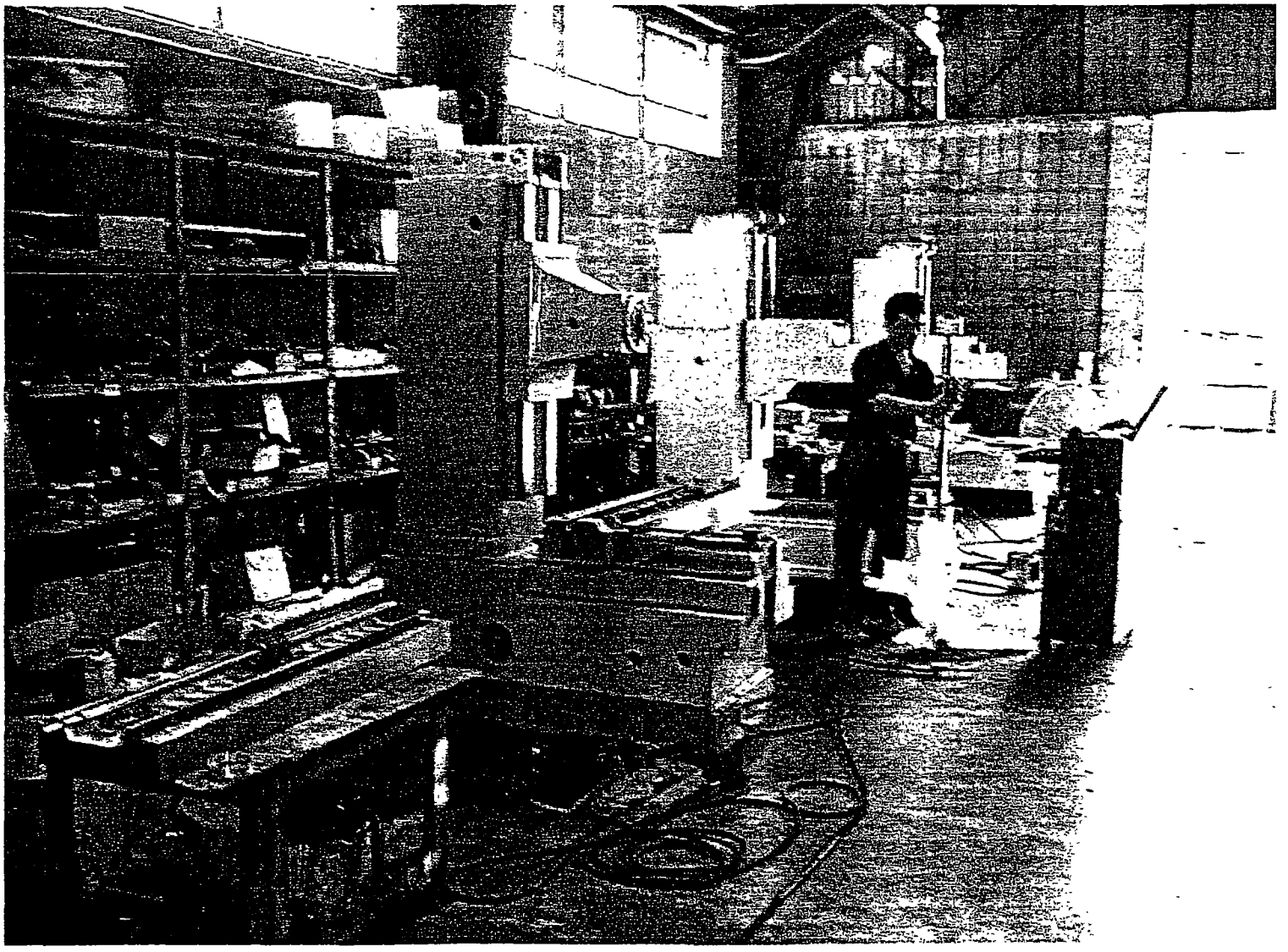

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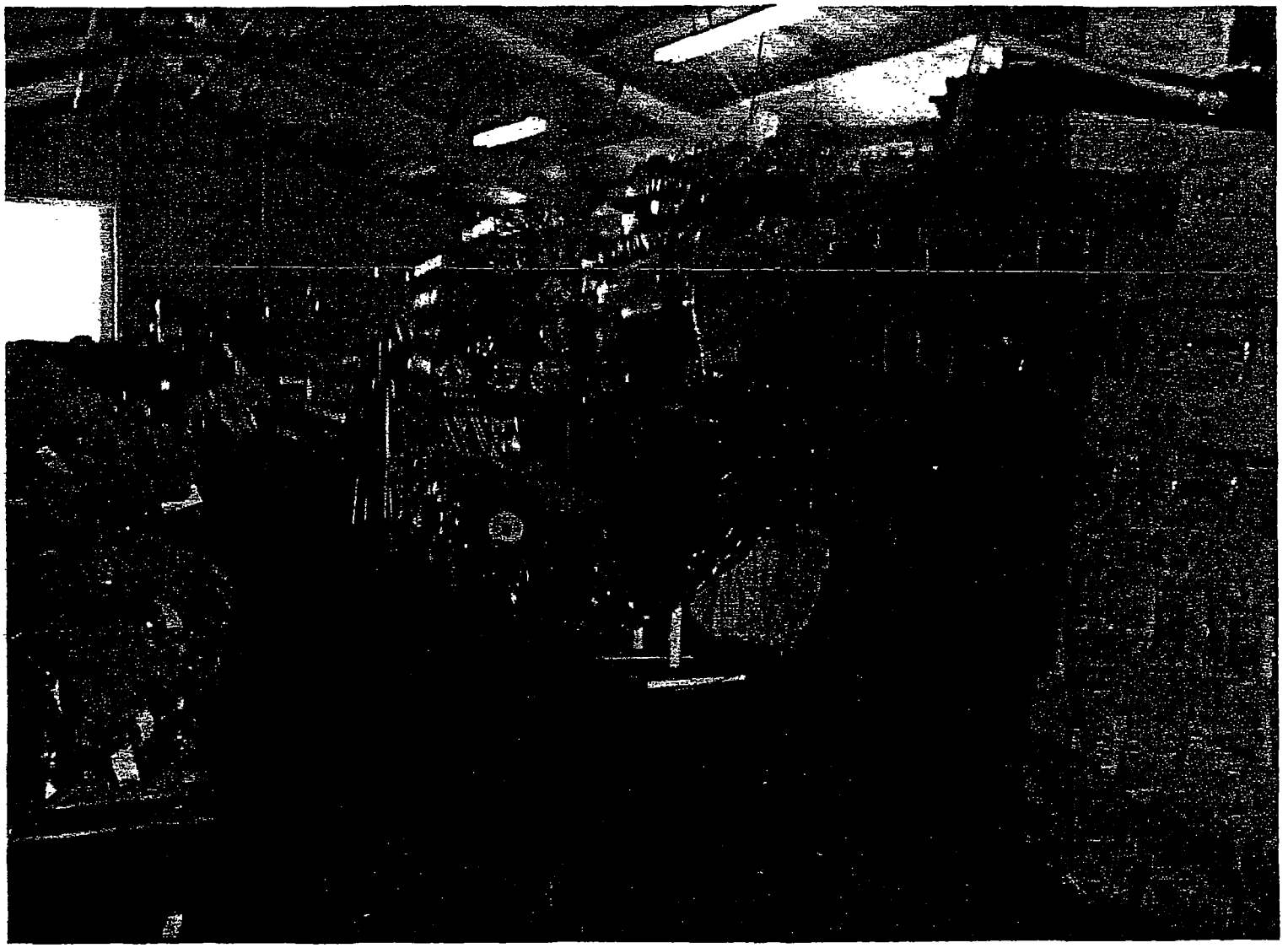

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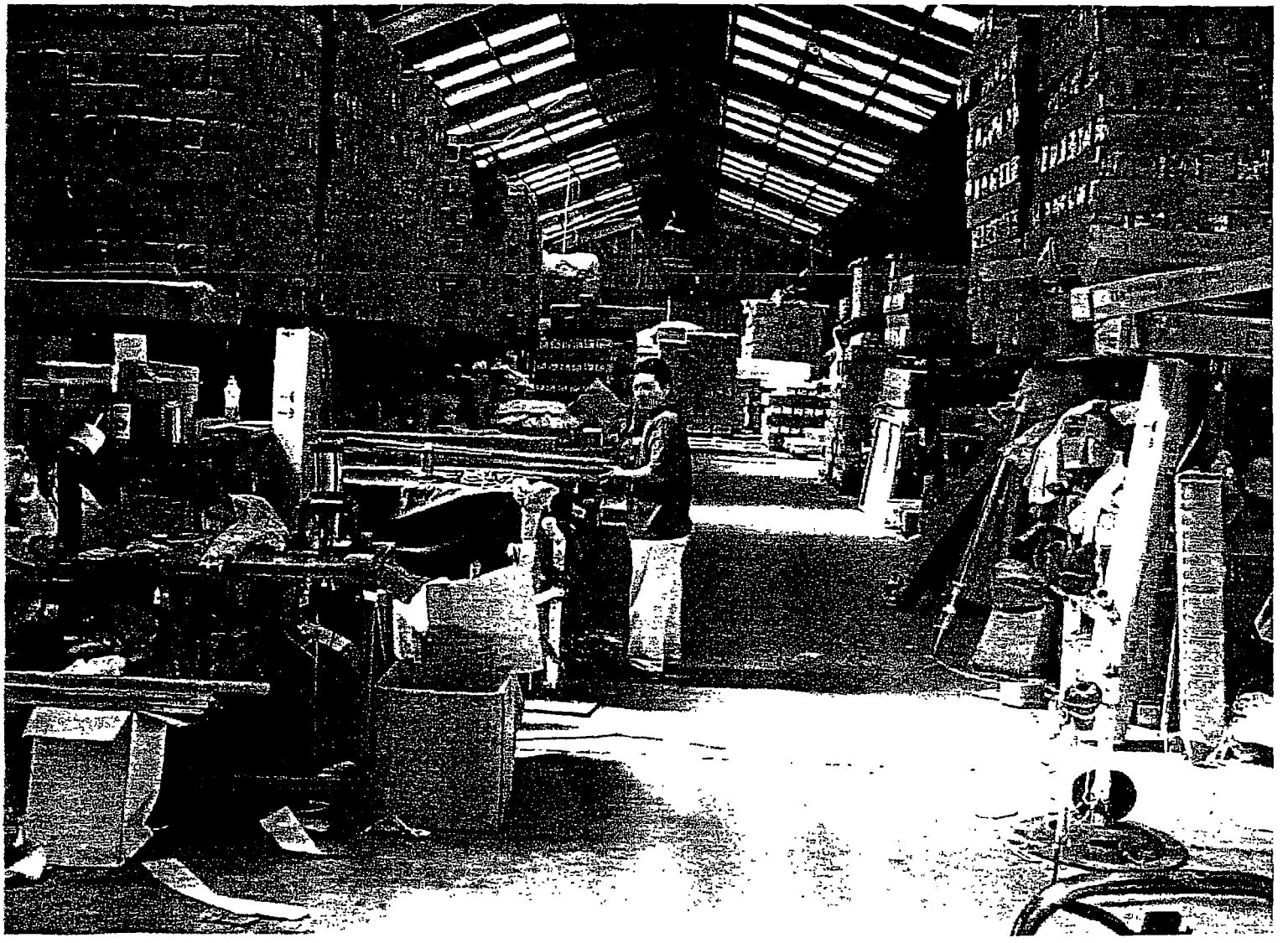

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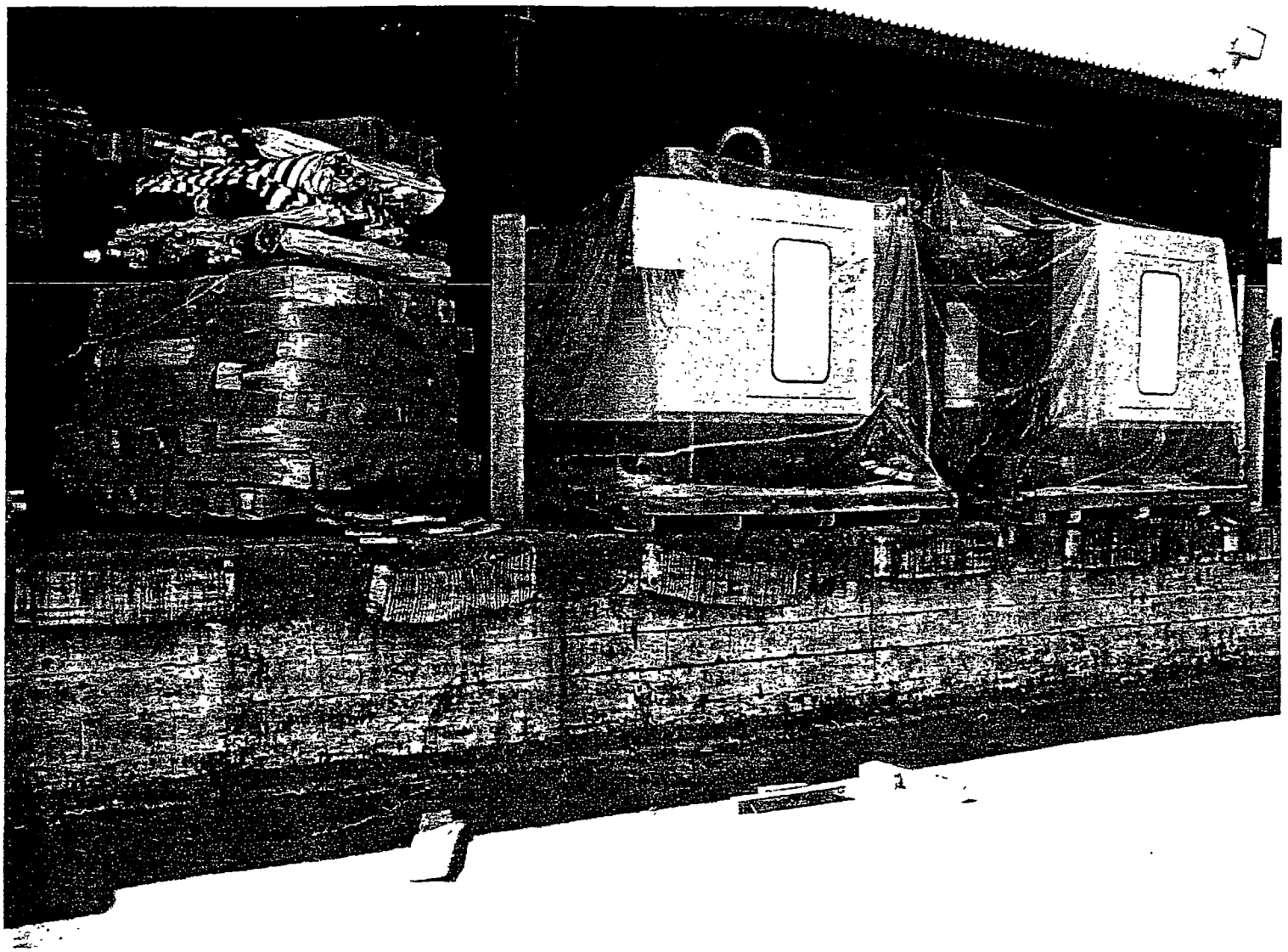

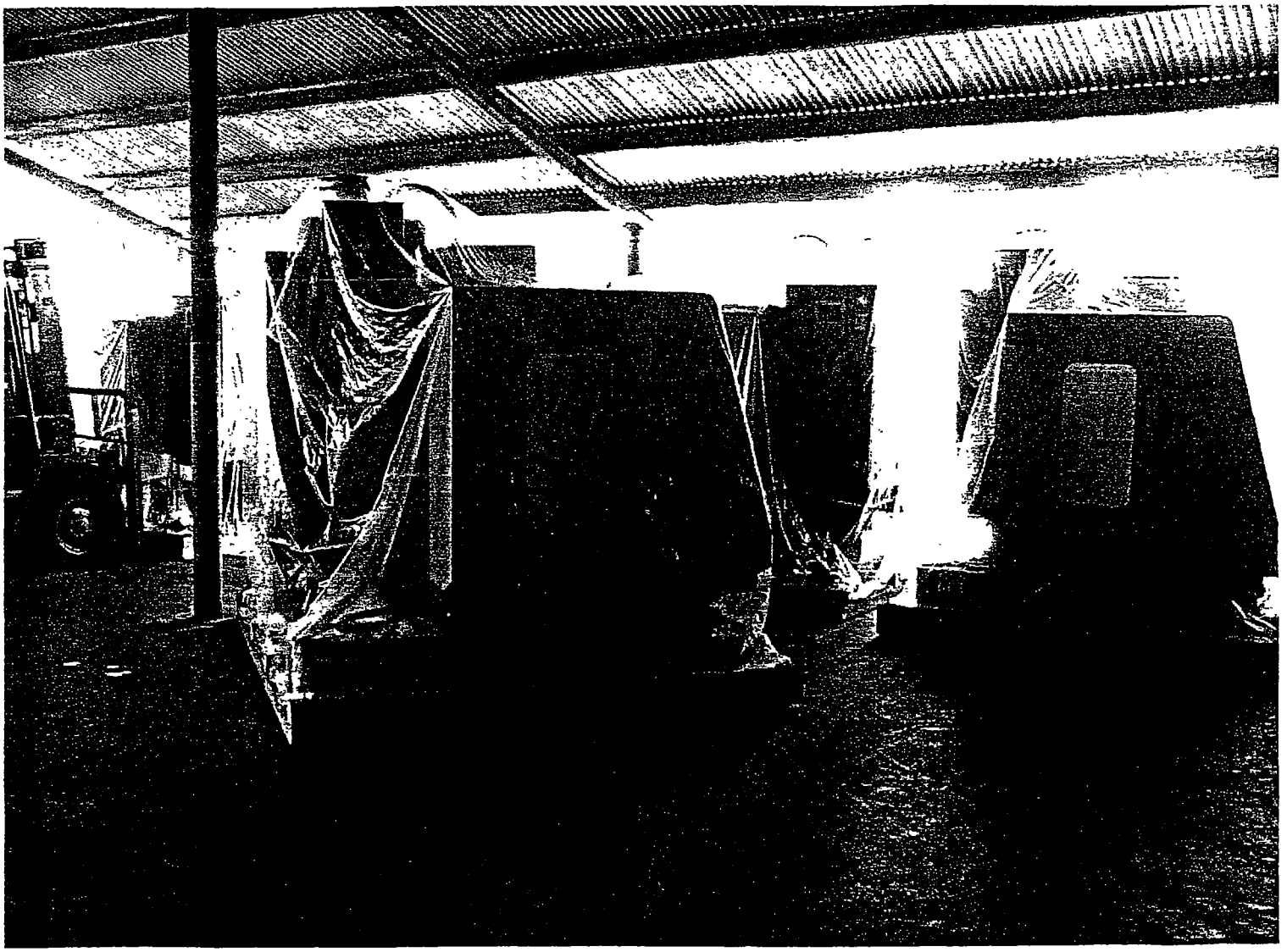

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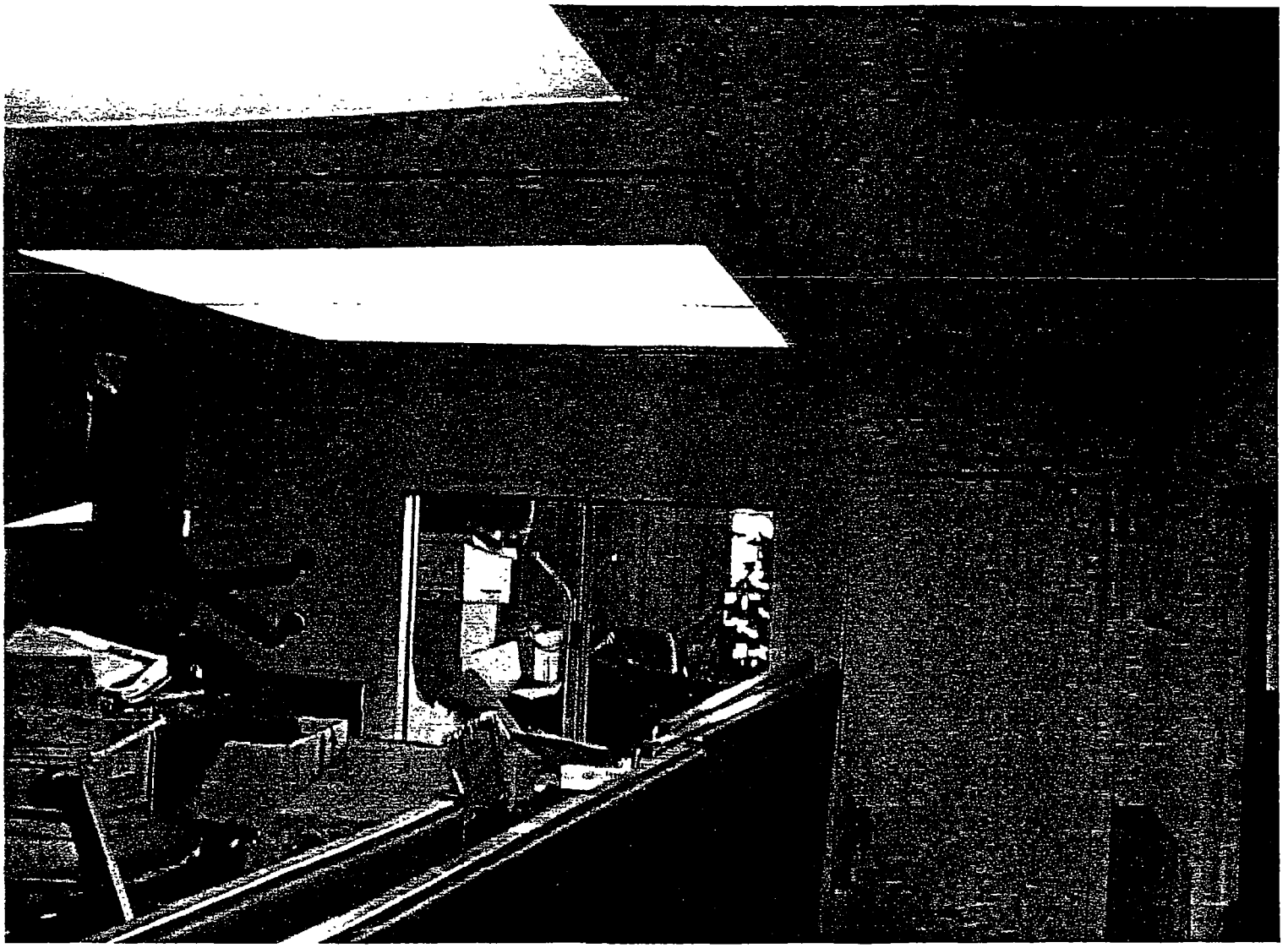

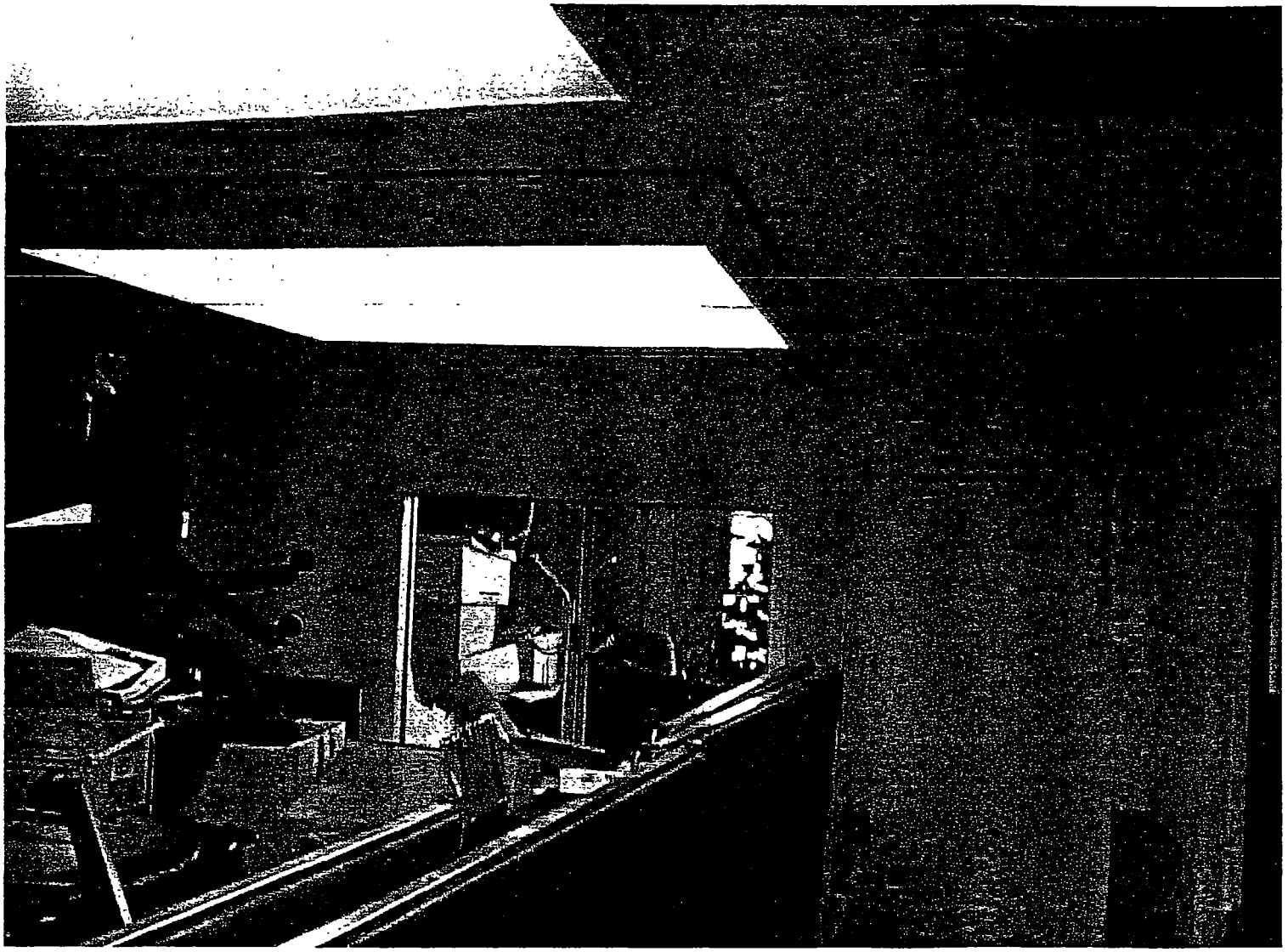

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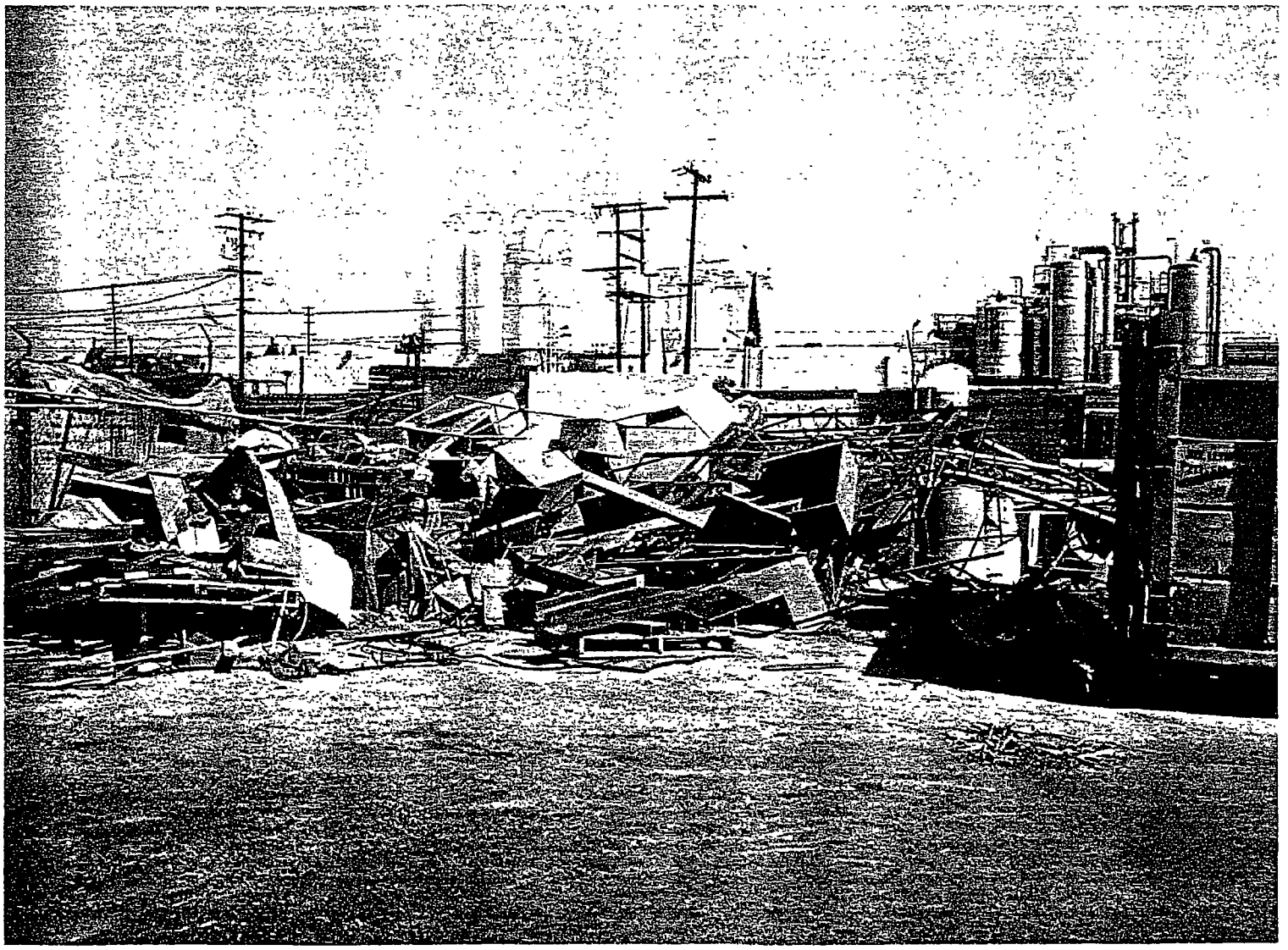

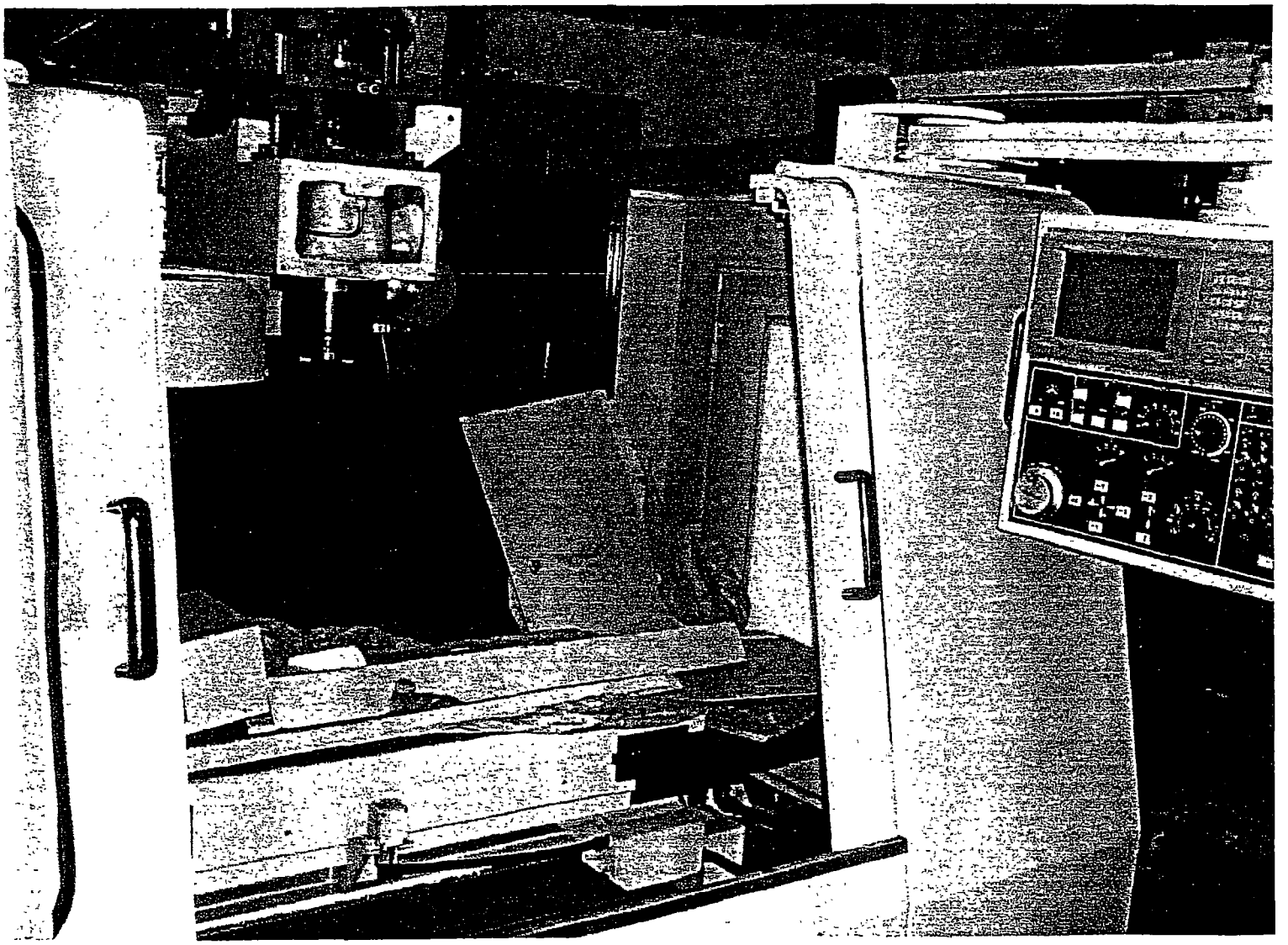

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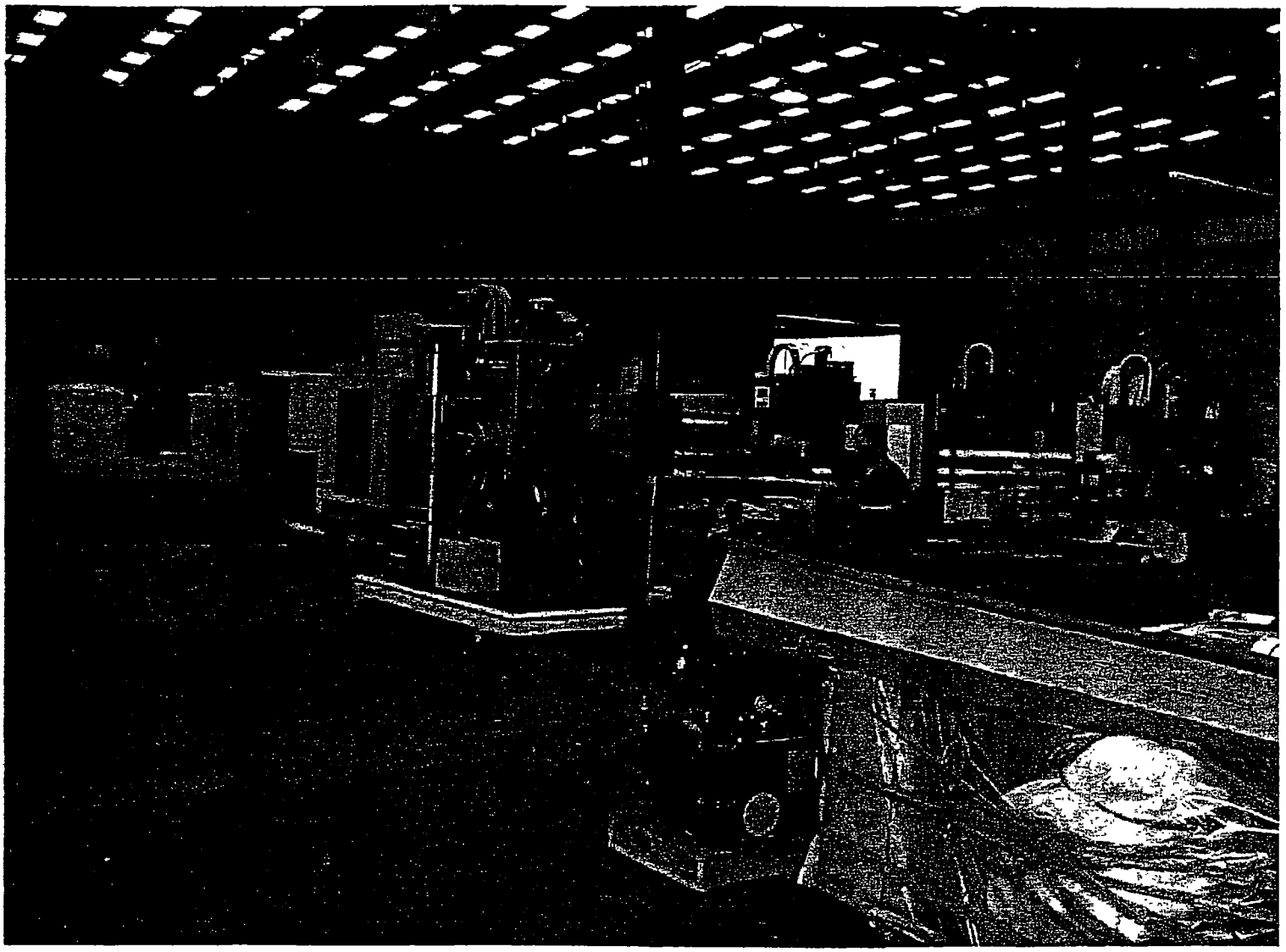

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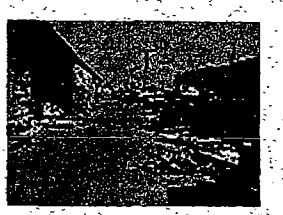

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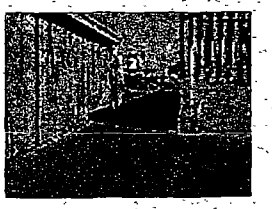

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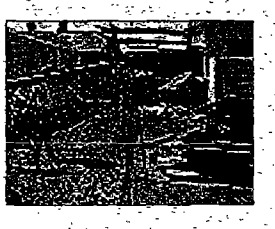

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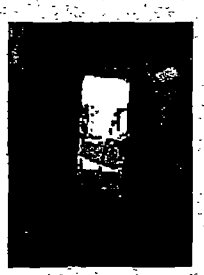

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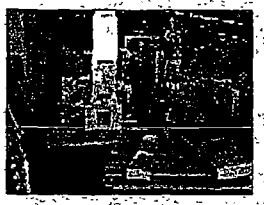
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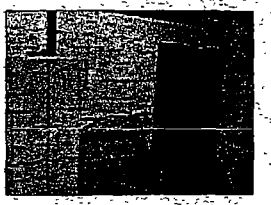
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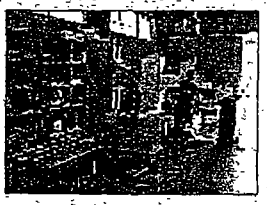
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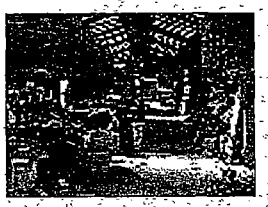
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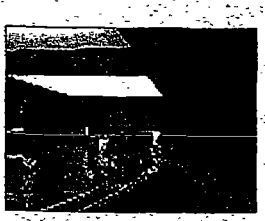

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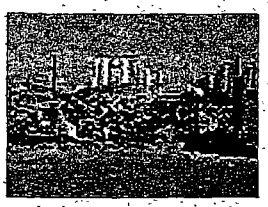

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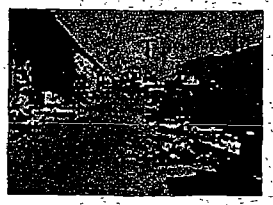

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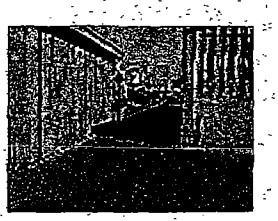

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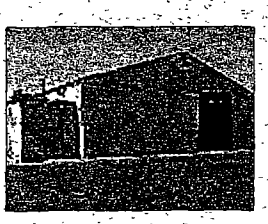

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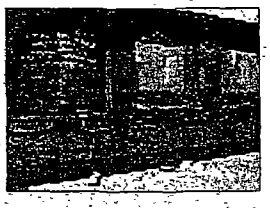

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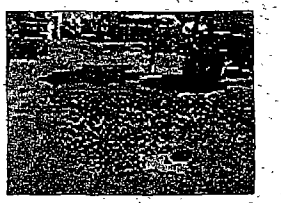

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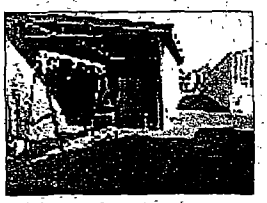

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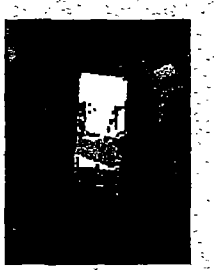

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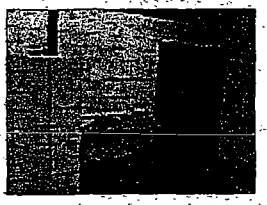

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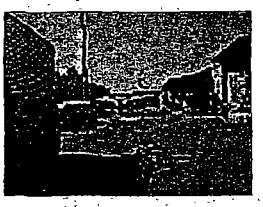

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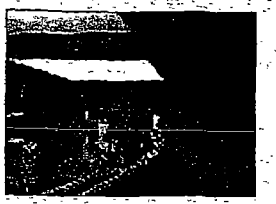

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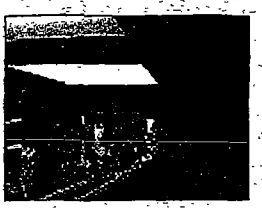

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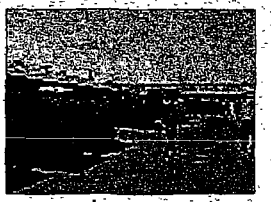

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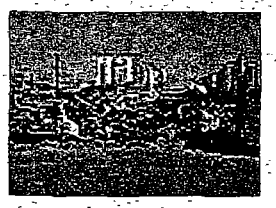

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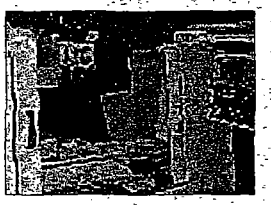

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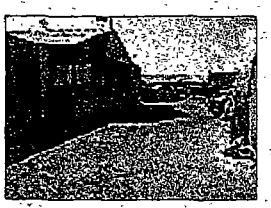


Torrence 99 08 04 (07).JPG

CERTIFIED

PACCAR inc

August 5, 1999

Mr. Peter Tsai
Dynatech of America
19706 South Normandie Avenue
Torrence, CA 90502

Dear Sir:

I enjoyed meeting with you August 3rd, 1999 during my visit and inspection of the property leased by Dynatech of America from PACCAR Inc at 1206 West 196th Street in Torrence, California. Our realtor, Mr. John Carver, your realtor, Mr. Eric Herold, and your plant staff, Dennis and Henry, attended the inspection. Following are inspection and meeting notes. Copies of photos taken during the visit are attached. In general, the property appears significantly improved from the last visit in May 1999. Following are items noted as deficient and not in conformance with the lease agreement. Tenant is respectfully requested to remedy these items immediately.

General Cleanup – The area in a corner of the property along the west side, (Photo No. 29) contains a pile of metal and debris. The debris shall be removed and the area cleaned up.

Hazardous Materials – There is potentially hazardous material in drums (Photo No. 4), and in paint materials stored in a room (Photo 13) on the premises. This material shall be removed from the property.

Asphalt Paving Damage – The asphalt paving has significant damage, mostly along the eastside of the property. The extent of the damage appears worse than in the last inspection. The paving must be repaired.

Roof and Plumbing Repairs – During the visit it was noted that there are several roof leaks and that underground sewer piping from the lavatory in the main building has leaks. Per the lease agreement, Tenant is responsible for any repairs to remedy these problems.

Use of Premise – The Tenant continues to conduct operations involving machine tool assembly and sewing not allowed under the terms of the lease. On October 22, 1996 we transmitted a proposed amendment to you that would have allowed tenant to conduct machine tool assembly and storage, and sewing of fabric items in connection with umbrella assembly and packaging for sale. Another copy of this amendment was provided to you during our meeting on August 3, 1999. Tenant shall either agree to a lease amendment allowing use or cease disallowed activities immediately.

During our meeting we discussed the general condition of the property and Tenant's intent with regard to long term use. You indicated that consistent with other recent correspondence from David Gurewitz that your associate at Bonchester International, Ltd has renewed interest in acquiring the property. You said that you would be retaining independent environmental counsel to address your concerns on August 3, 1999, and that Bonchester would be responding to PACCAR within two weeks. We look forward to that response. Please direct that response regarding acquisition to our Corporate Real Property Manager, Mr. Phil E. Gladfelter.

Very truly yours,

Dan Lewis P/E

Daniel N. Lewis

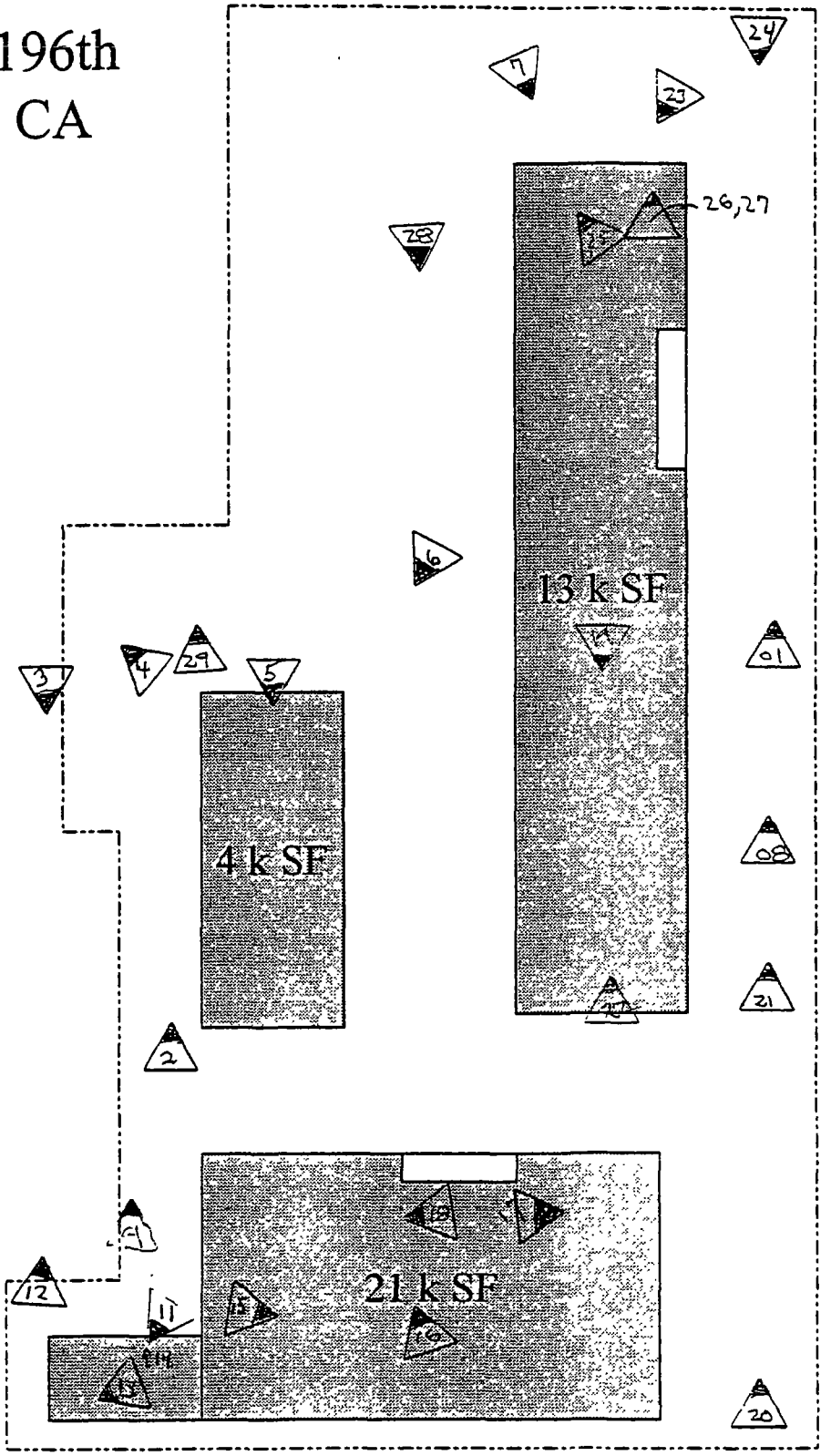
Director of Corporate Services

DNL:

Attachments

cc: R.E. Bangert II
Phil E, Gladfelter
File: 1206 West 196th , Torrence

1206 W. 196th
Torrence, CA



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30,31

NTS

Photo Legend 990203

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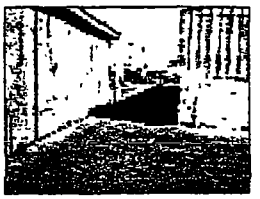

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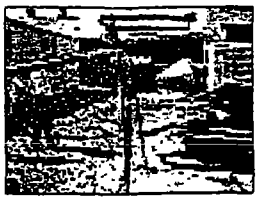

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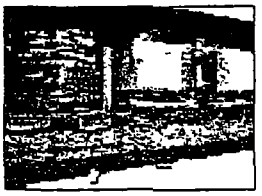

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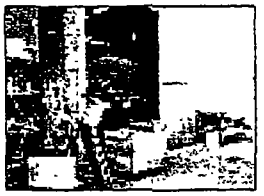

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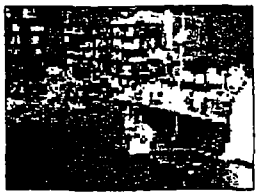
Torrence 99 08 03 (12).JPG



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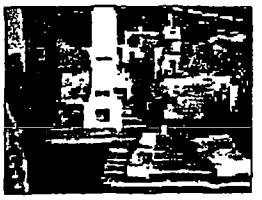

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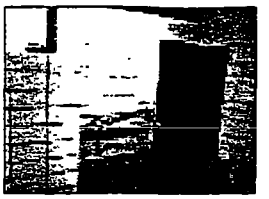

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Torrence 99 08 03 (22).JPG

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Torrence 99 08 03 (24).JPG

Torrence 99 08 03 (25).JPG

Torrence 99 08 03 (26).JPG

Torrence 99 08 03 (27).JPG

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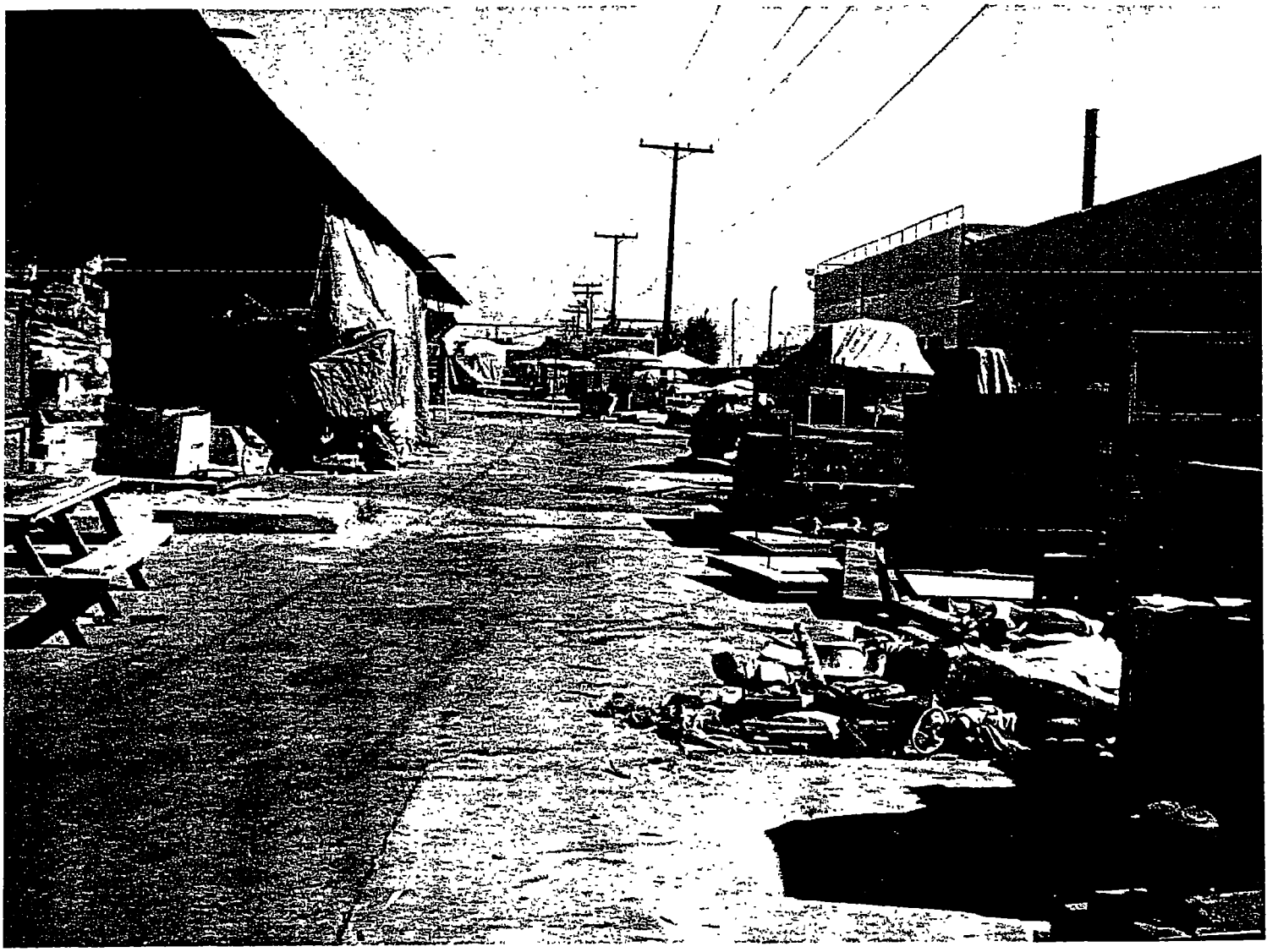

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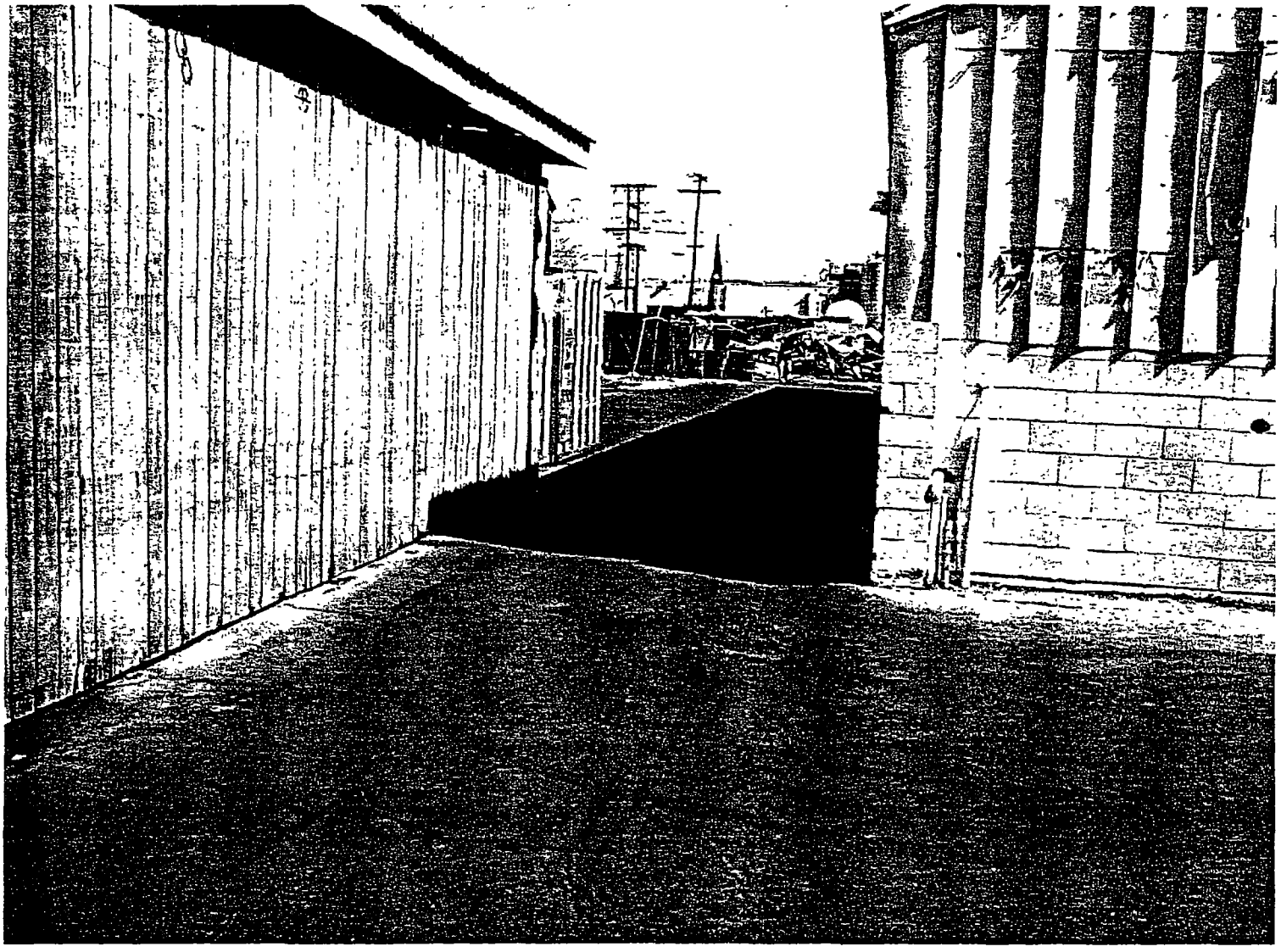

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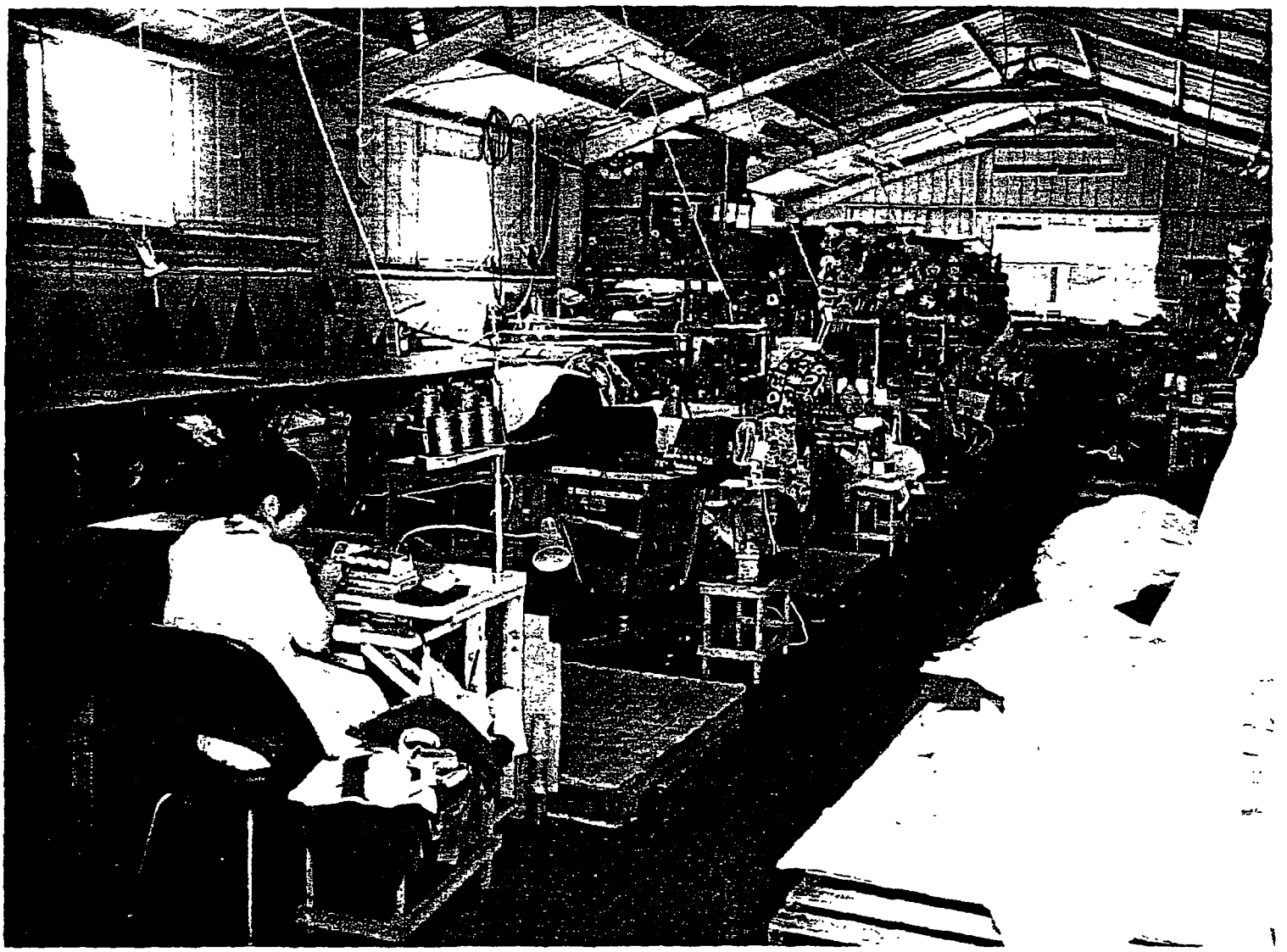

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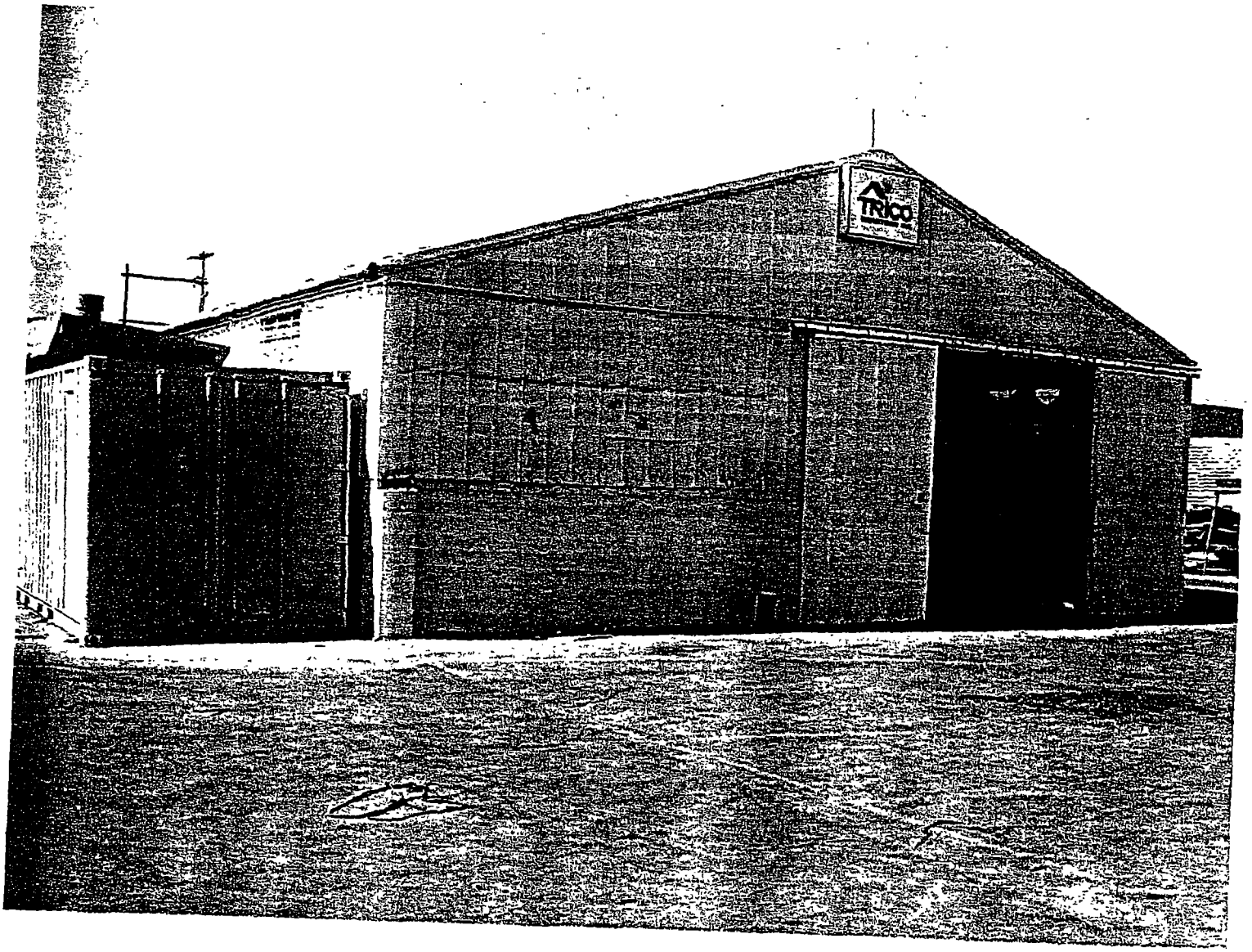

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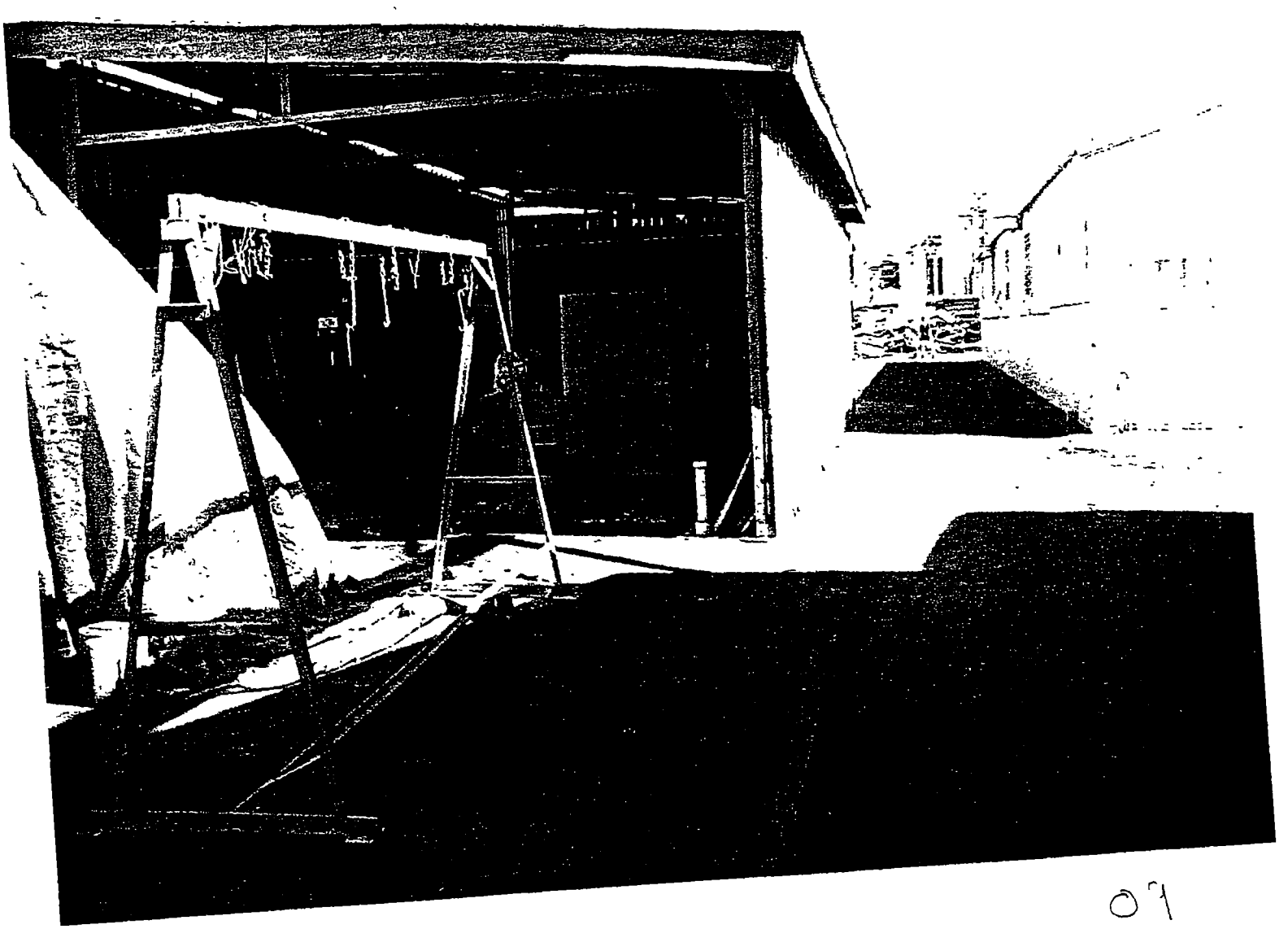

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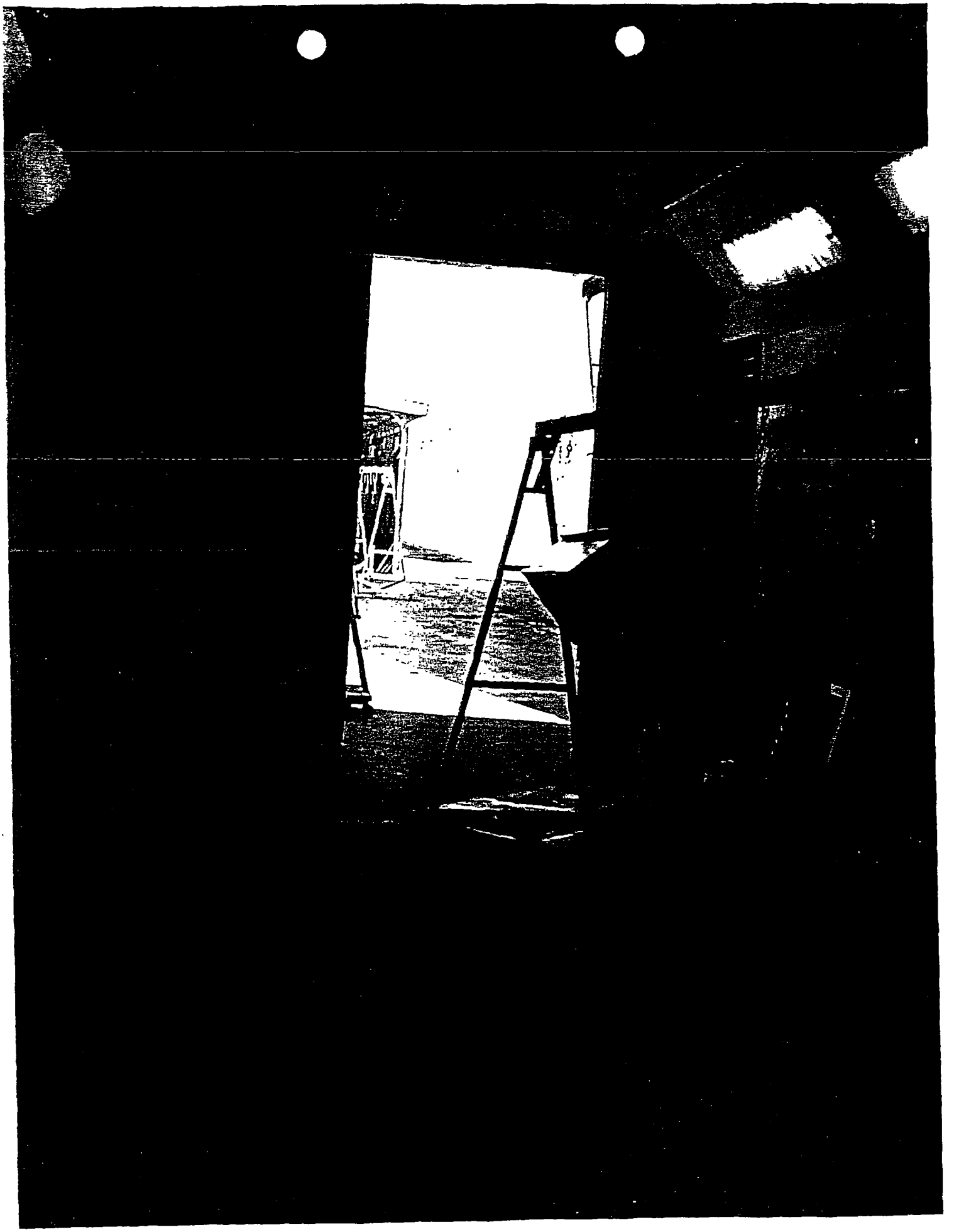

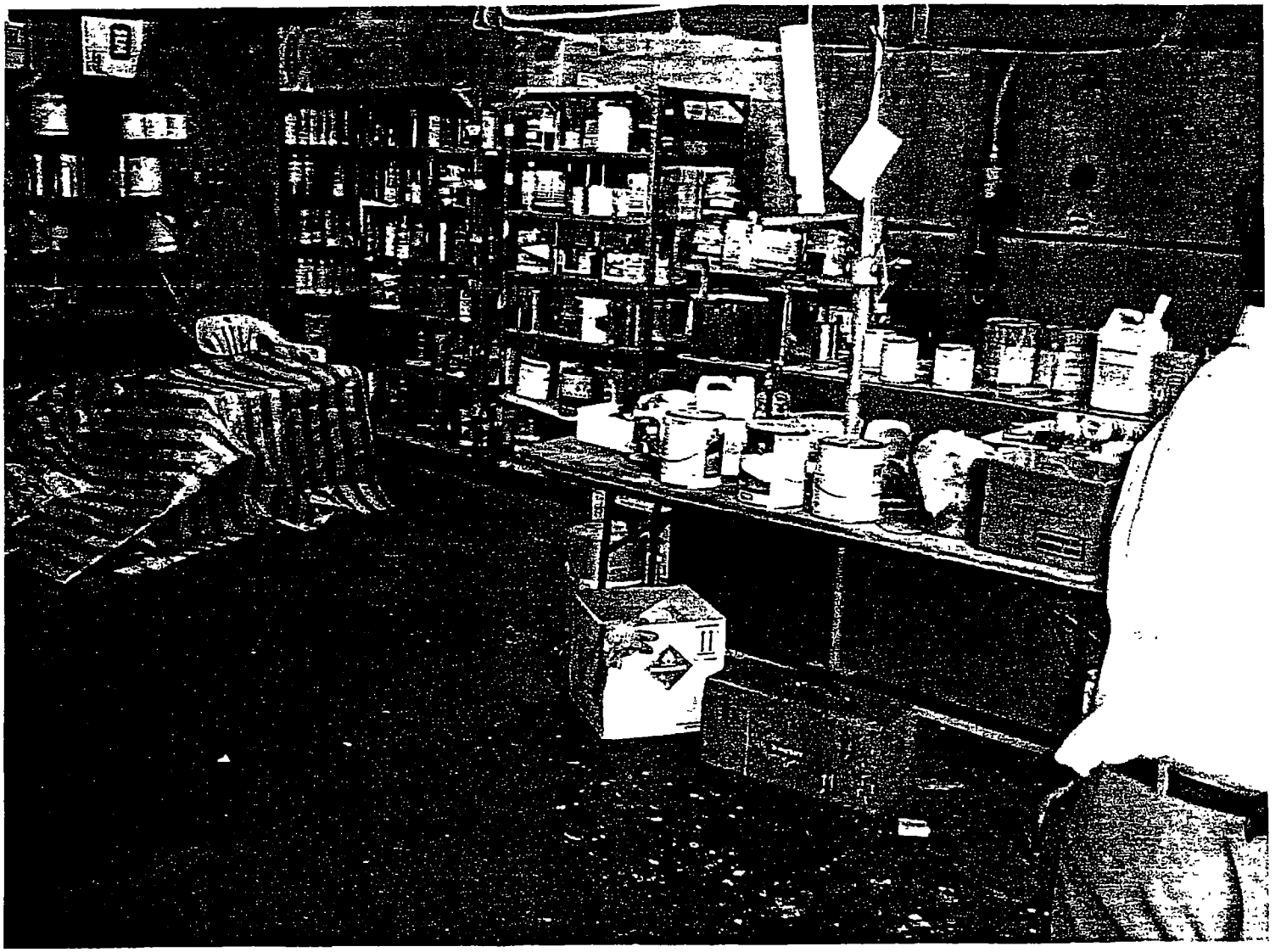

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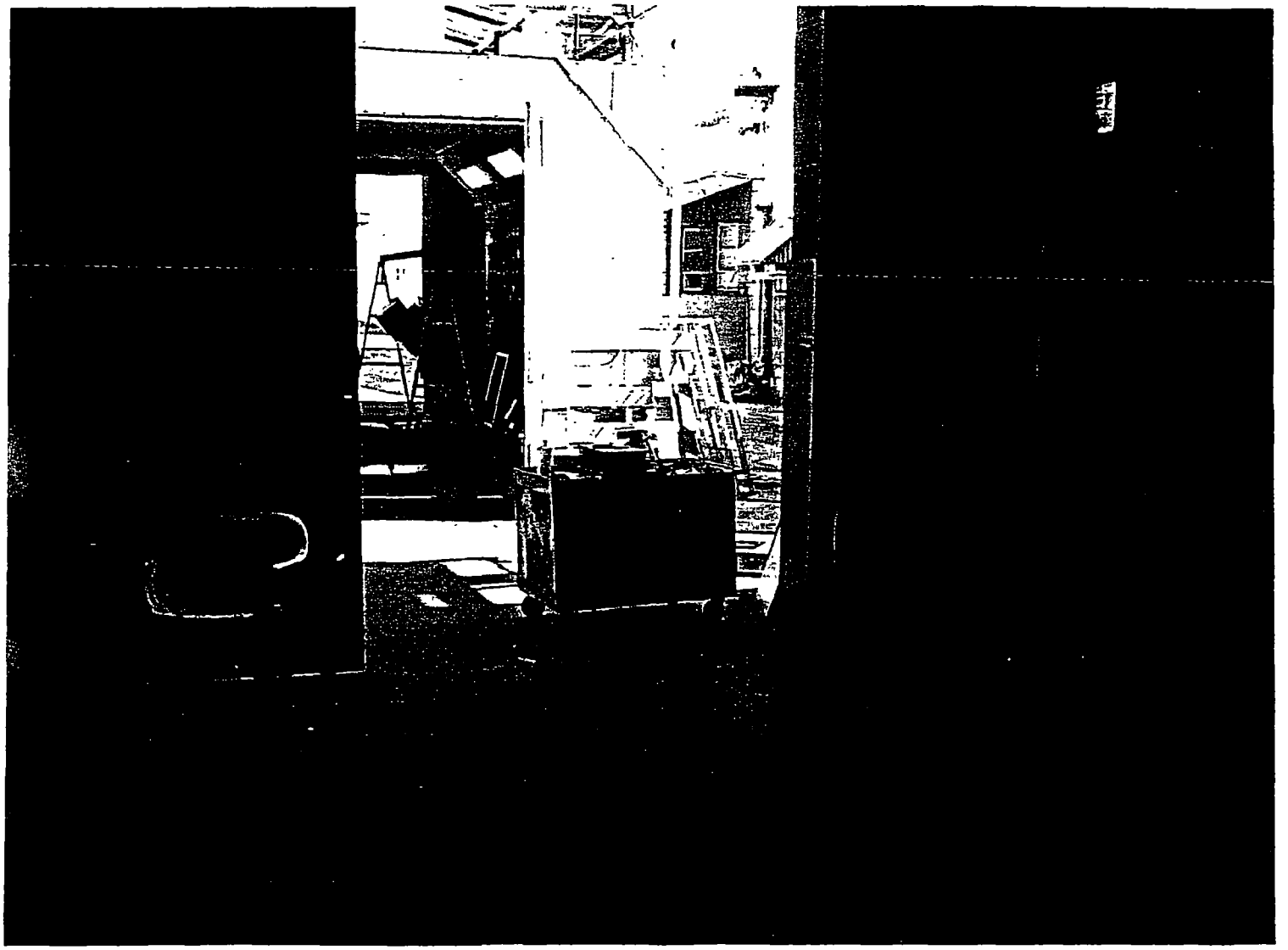

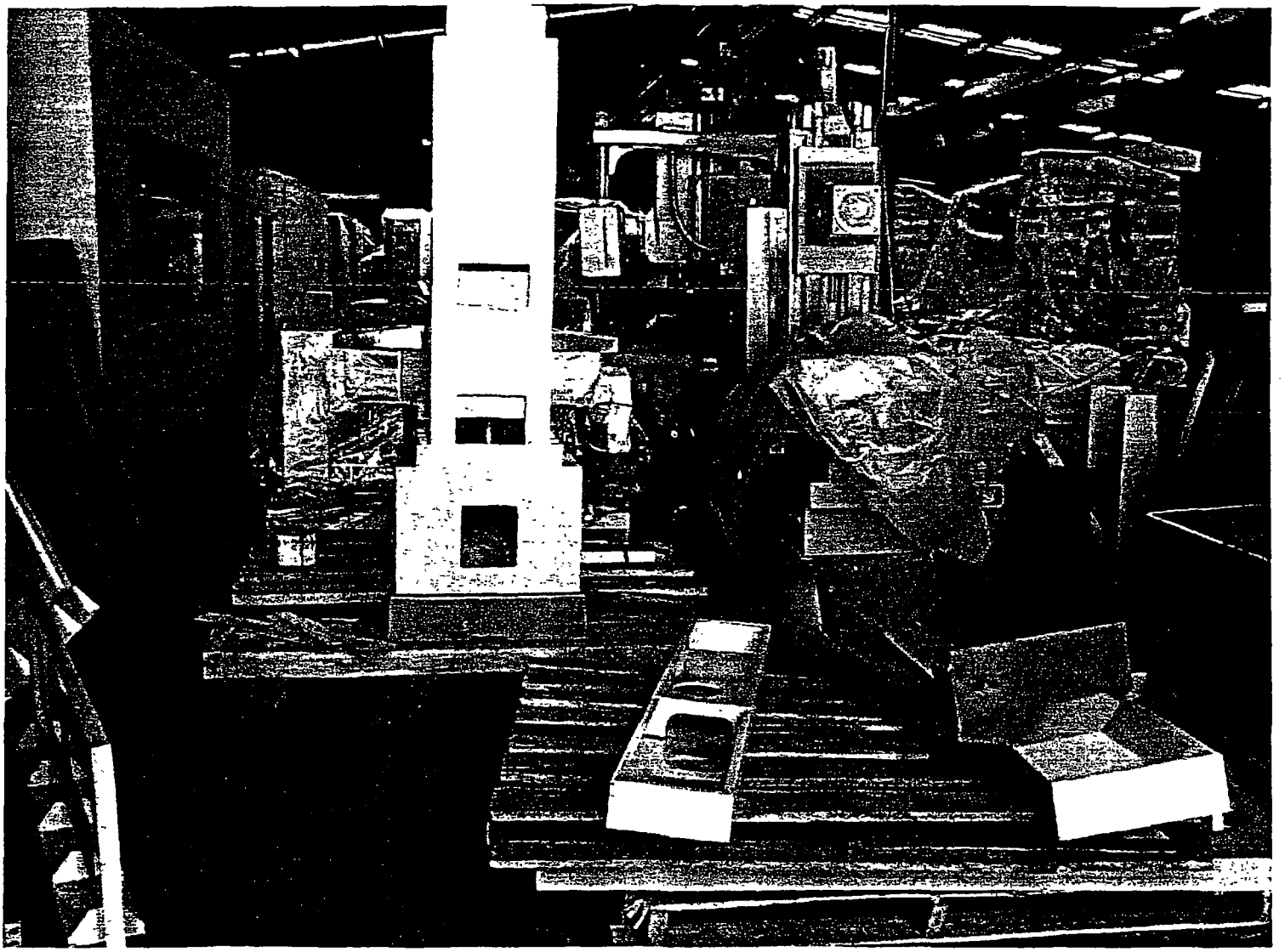

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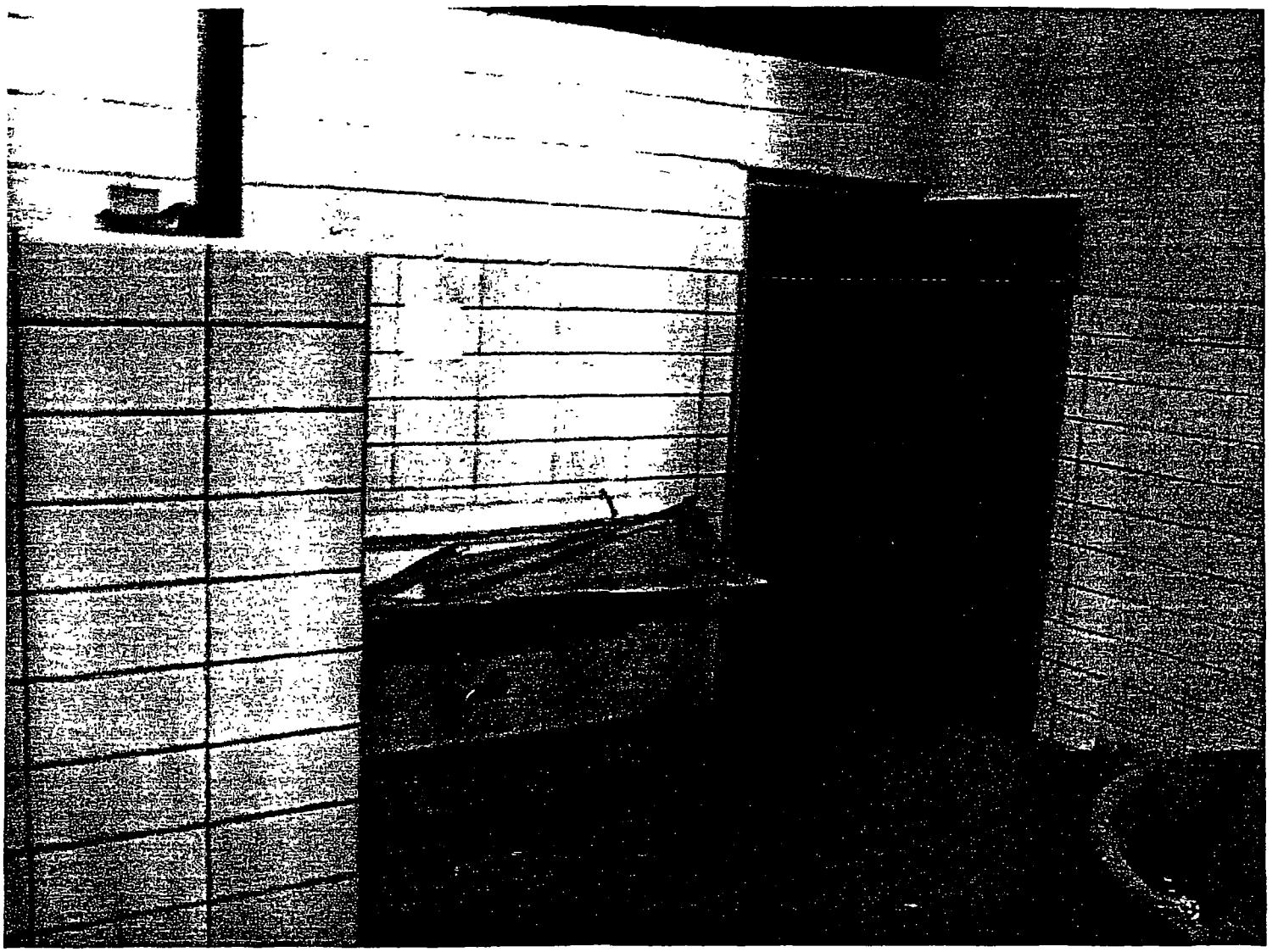

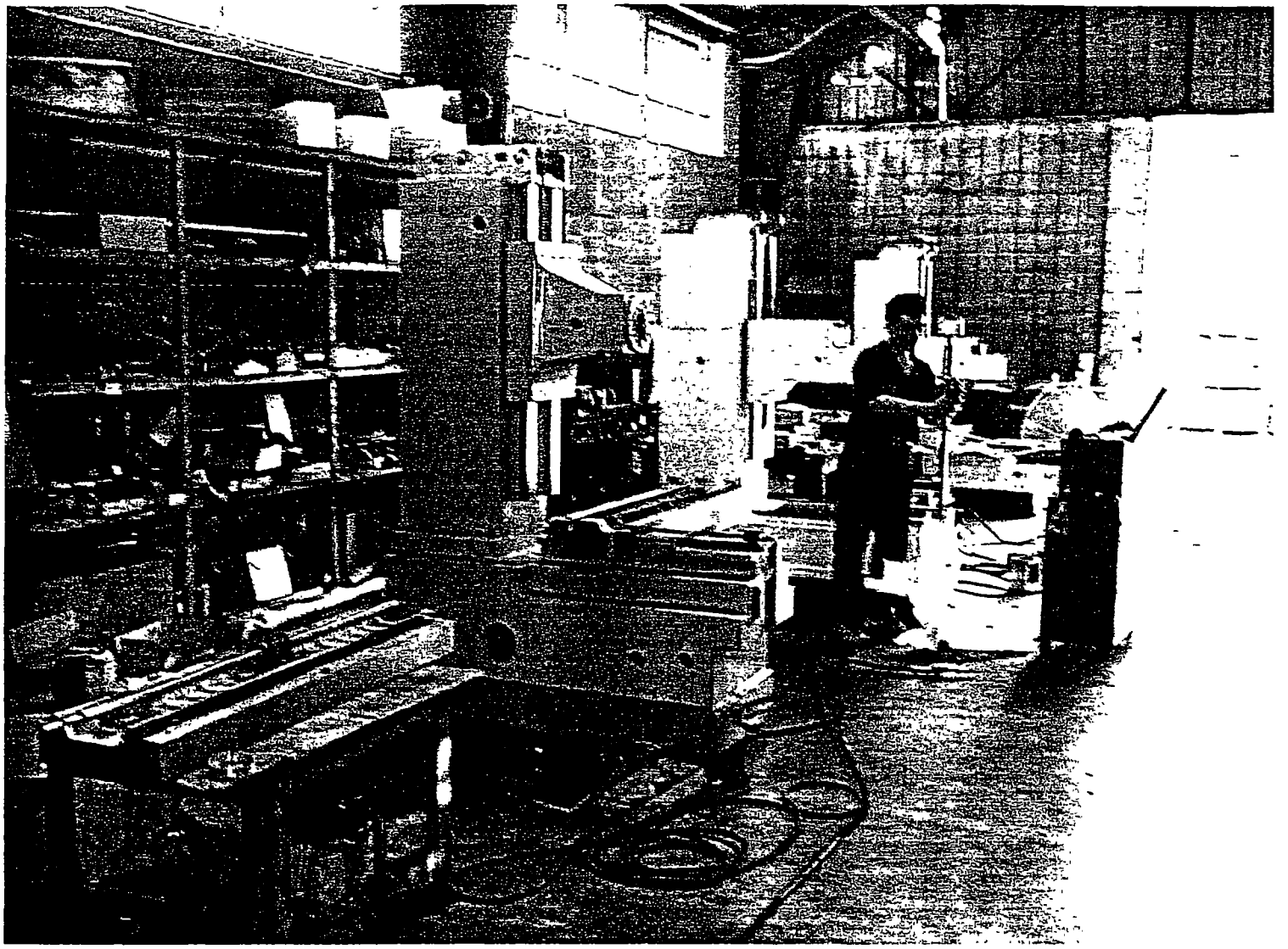

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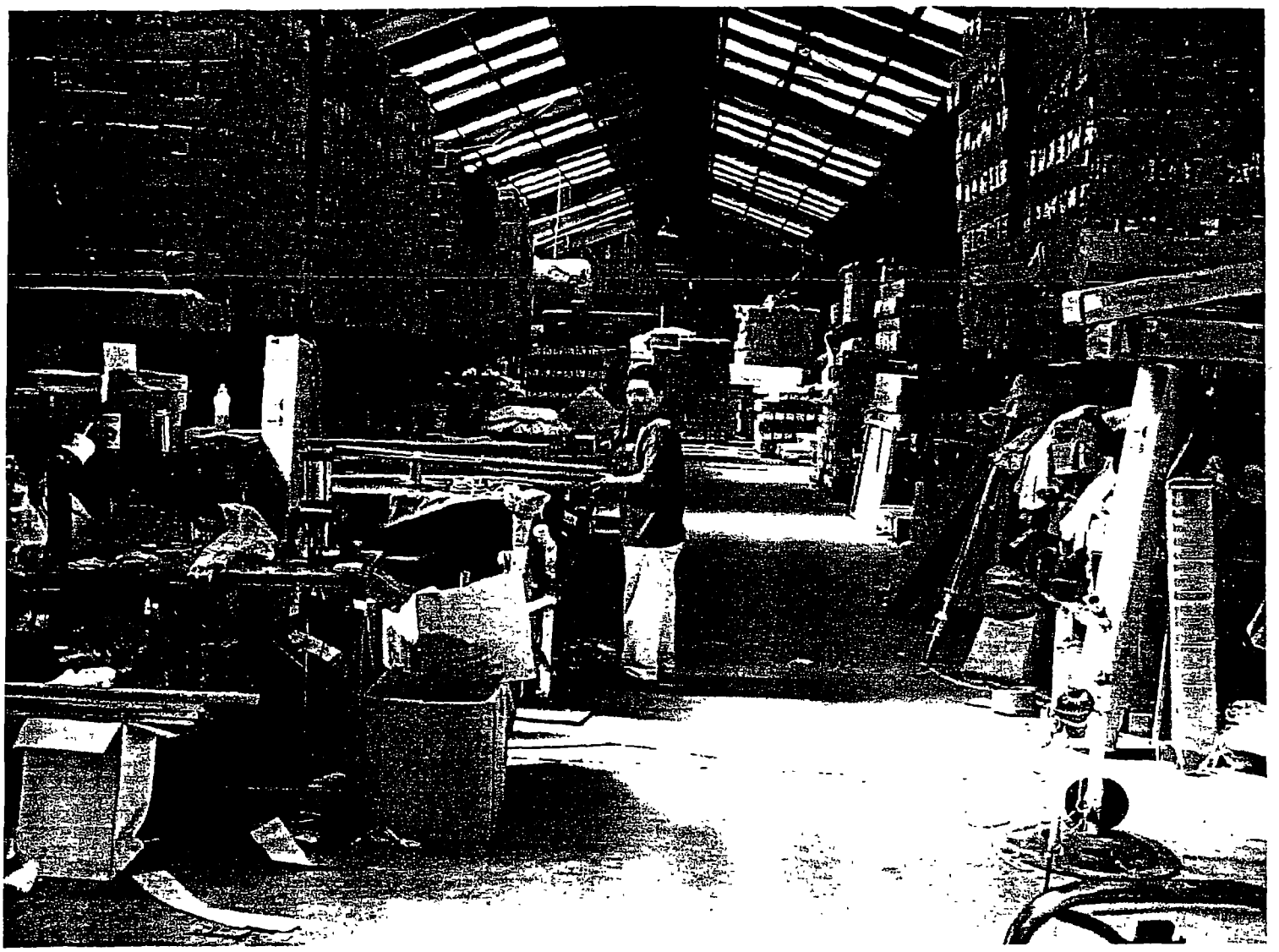

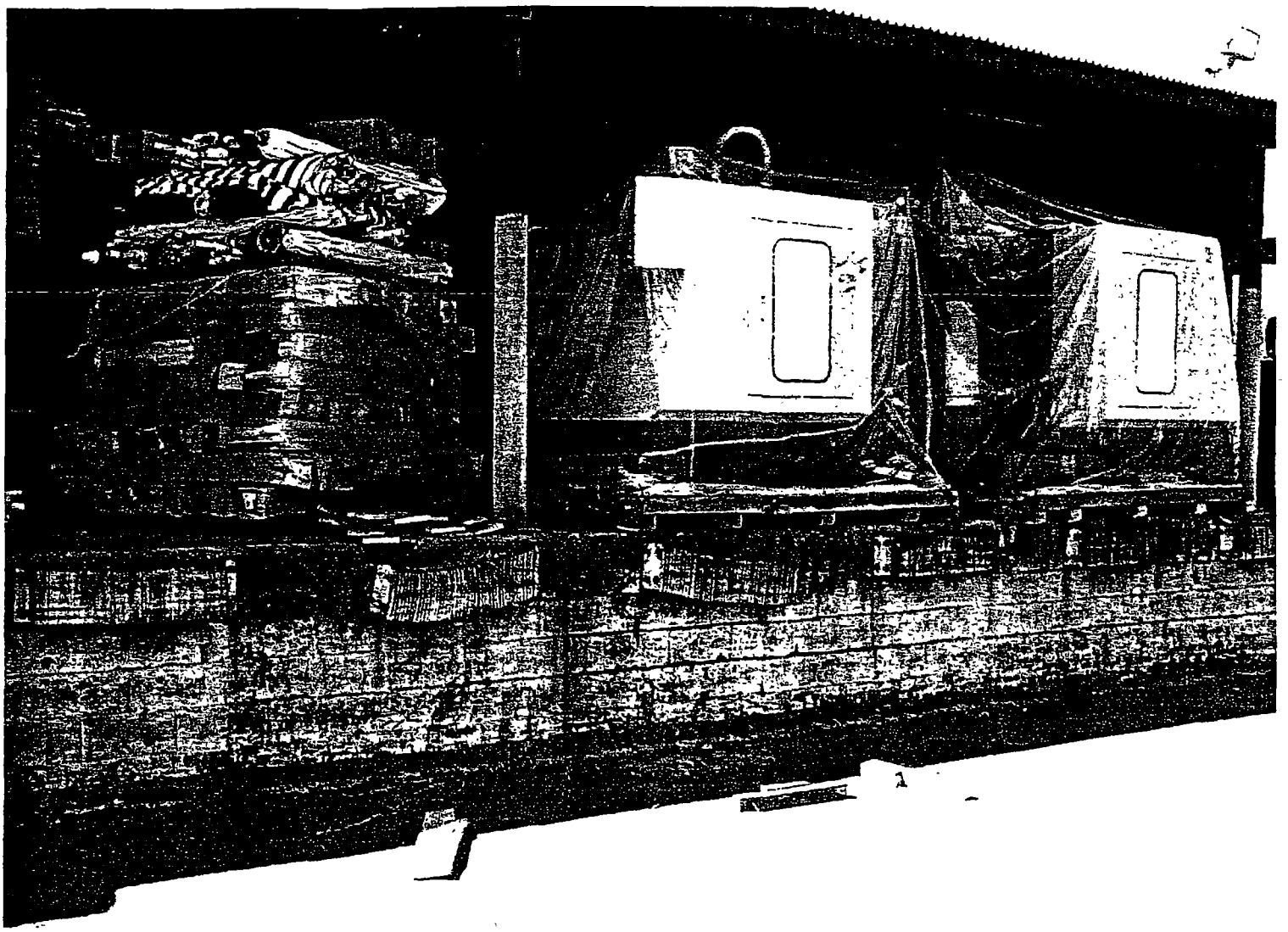

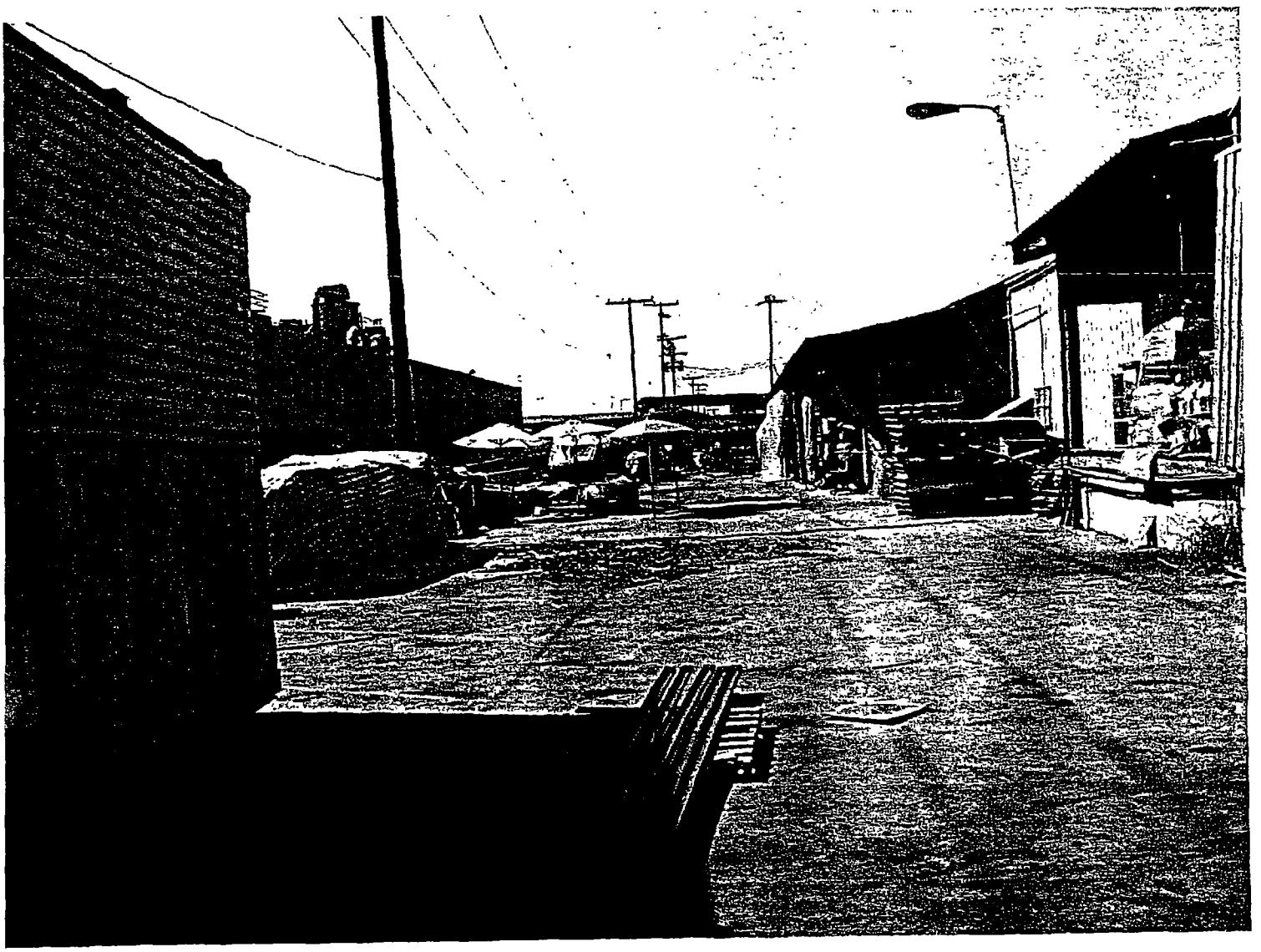

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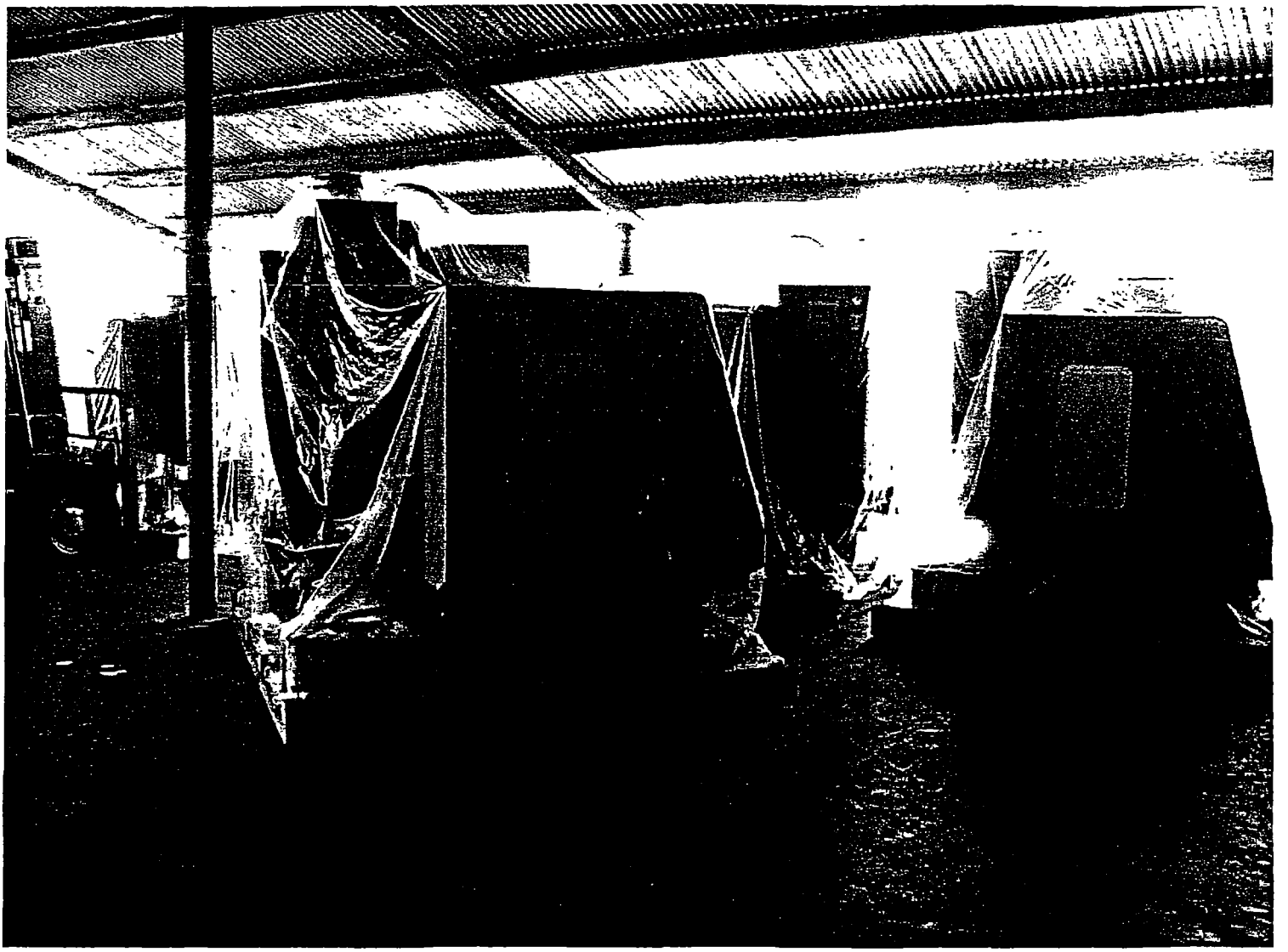

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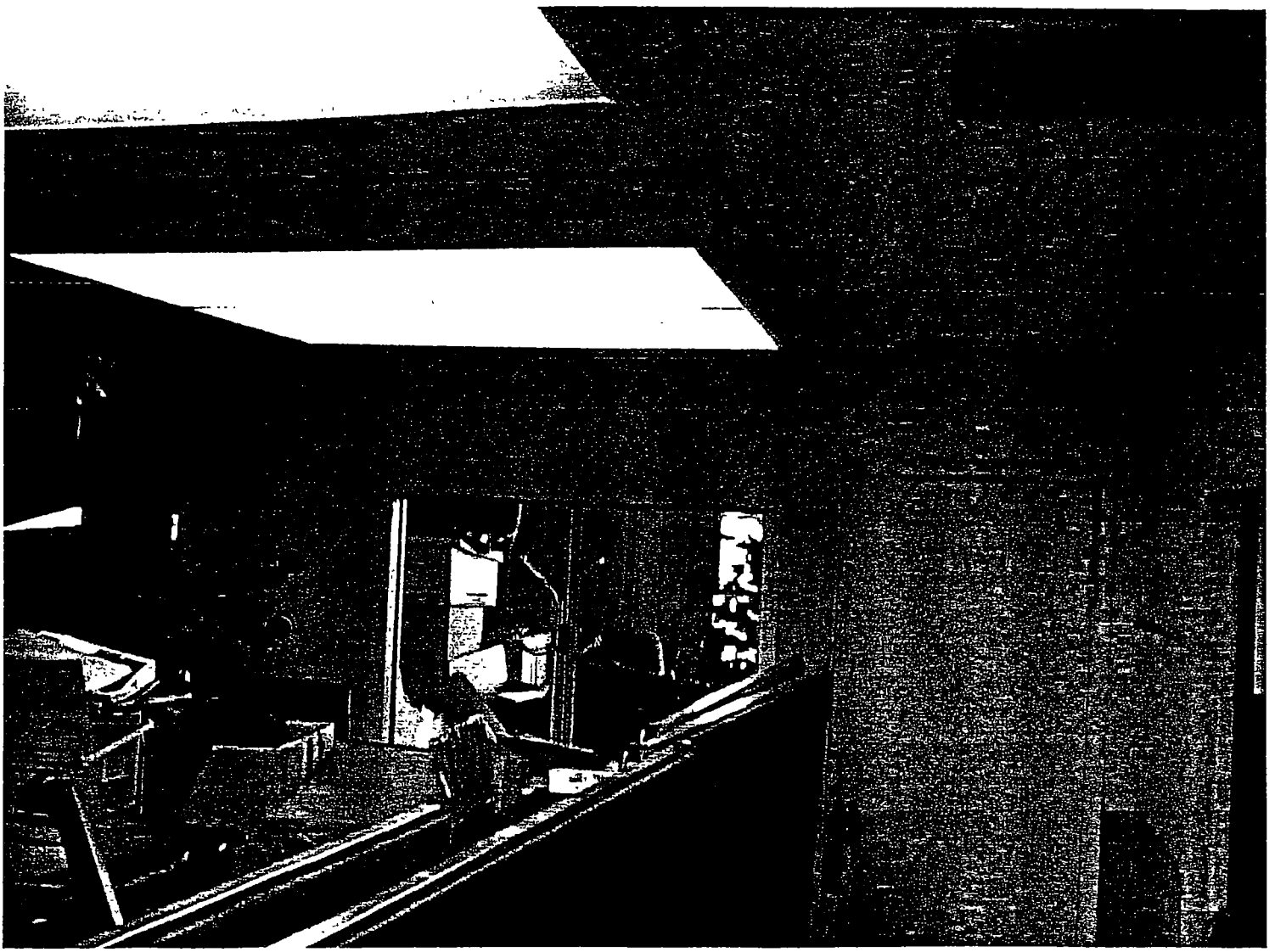

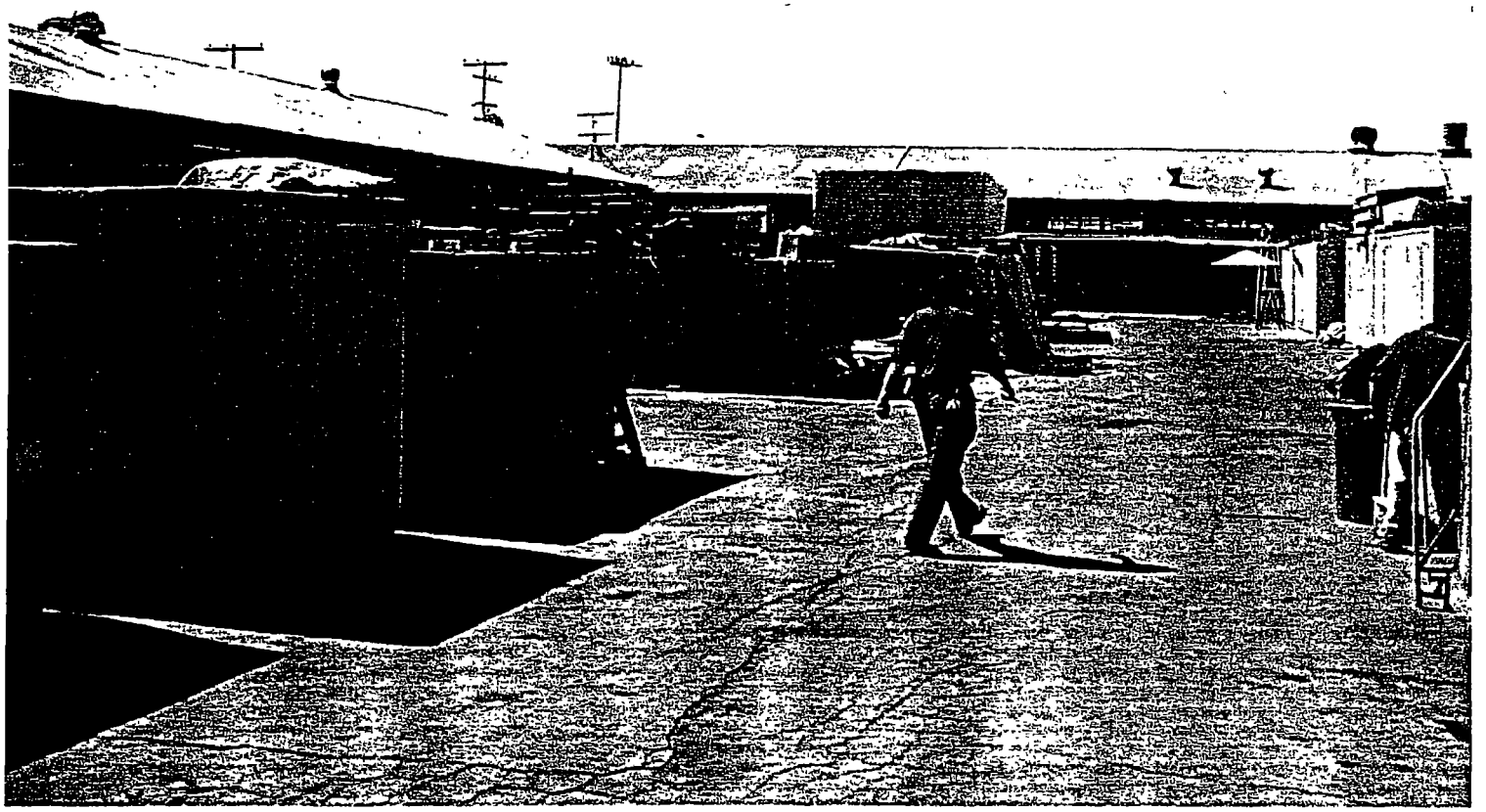

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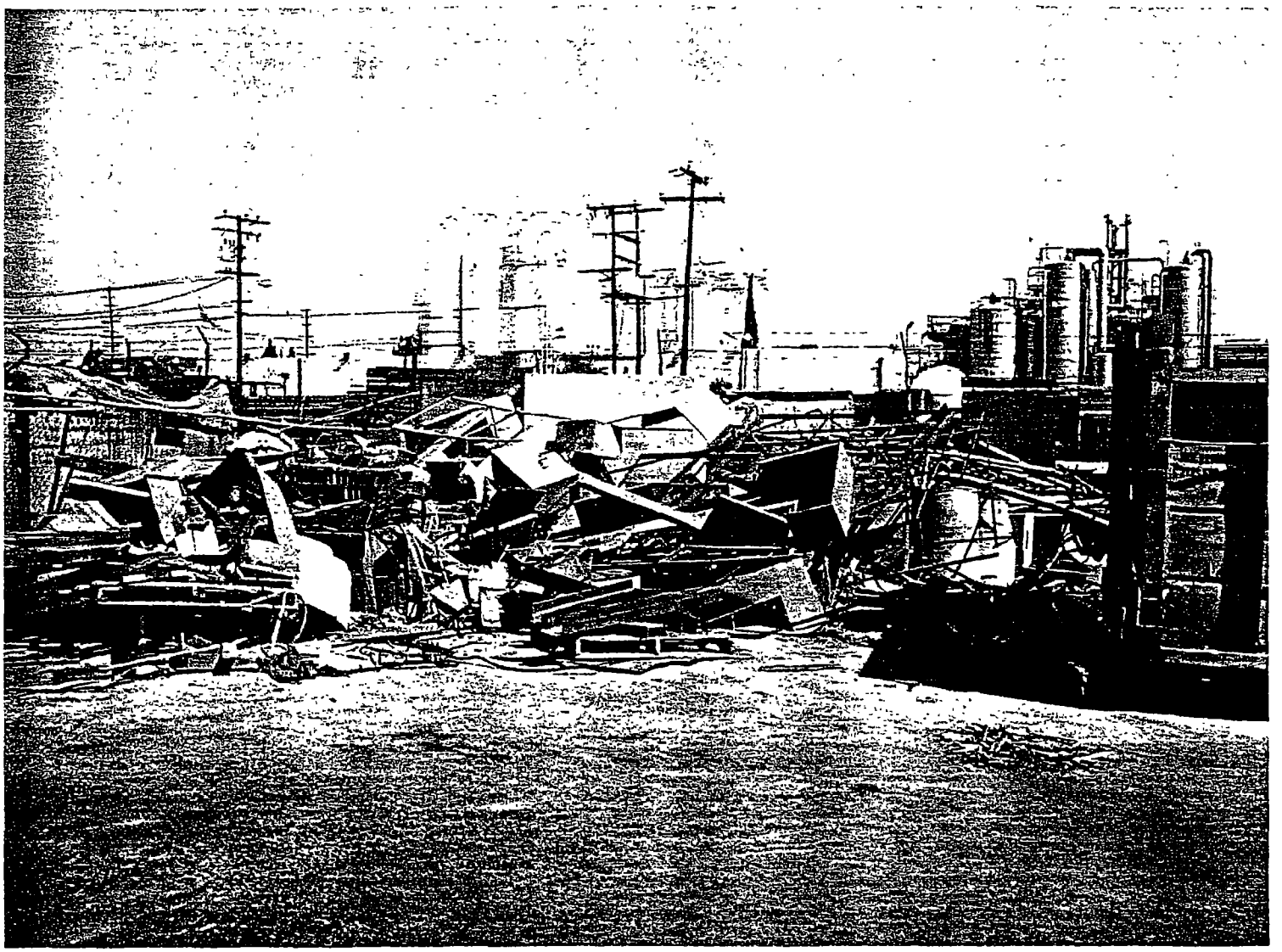

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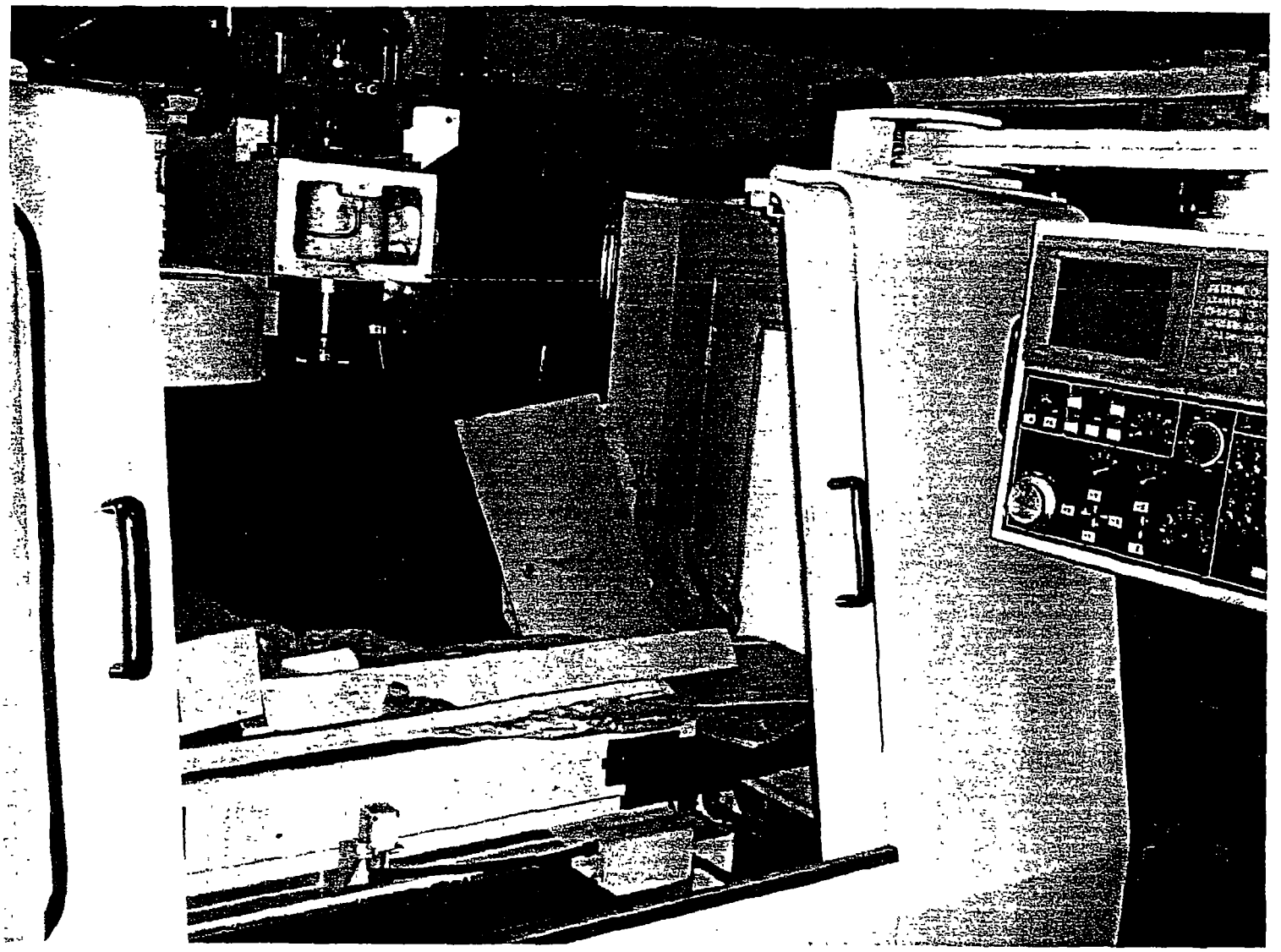

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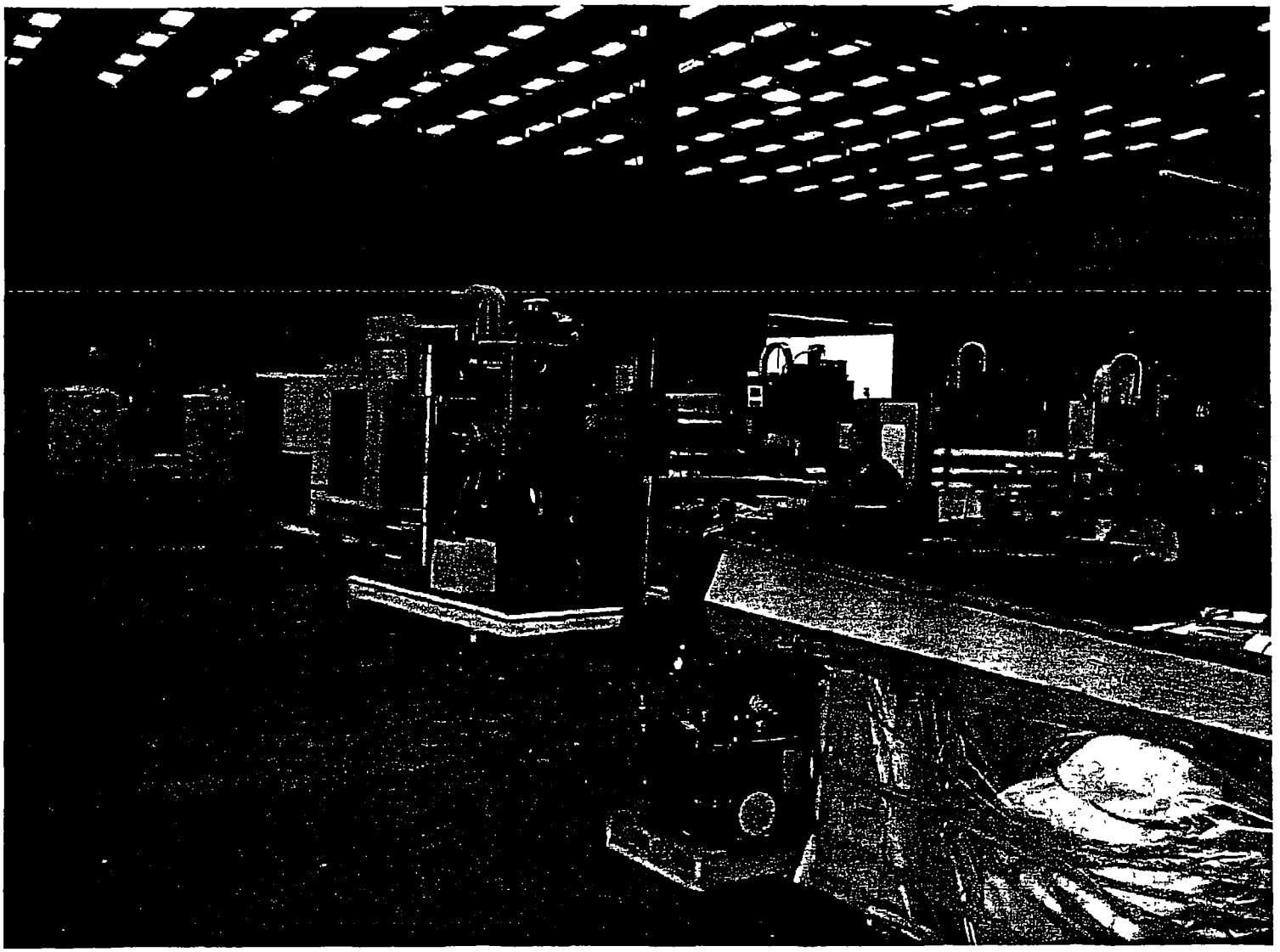

31

File ~~Contract~~ Dames & Moore @ Trico Torrance cc Donna Gisle
fyi
Bob Badla
8/9/99

PLEASE FIND ENCLOSED A RENEWAL CERTIFICATE OF INSURANCE FOR THE NOTED INSURED. SHOULD YOU REQUIRE ANY CHANGES OR MODIFICATIONS TO THE CERTIFICATE, PLEASE FAX CHANGES TO TRACY FREEMAN OR GELDA KRUZE OF MARSH AT (415) 743-8074, OR PHONE DIRECT AT (415) 743-8468 FOR TRACY FREEMAN & (415) 743-8466 FOR GELDA KRUZE.

ACORD. CERTIFICATE OF INSURANCE

DATE (MM/DD/YY) 08/02/99

PRODUCER
MARSH USA RISK &
INSURANCE SERVICES
P.O. BOX 193880
SAN FRANCISCO, CA 94119-3880
LICENSE #0437153

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

COMPANIES AFFORDING COVERAGE

COMPANY A: NATIONAL UNION FIRE INS CO OF PITTSBURGH, PA

COMPANY B: ST PAUL FIRE & MARINE INS CO

COMPANY C: AIU INS CO (UMBRELLA) AISLIC (PROFESSIONAL E&O)

COMPANY D: INSURANCE COMPANY OF THE STATE OF PENNSYLVANIA

INSURED
DAMES & MOORE GROUP & THEIR
WHOLLY OWNED SUBSIDIARIES
911 WILSHIRE BOULEVARD
SUITE 700
LOS ANGELES, CALIFORNIA 90017

COVERAGES

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED, NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

CO LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS		
A	GENERAL LIABILITY	GL457-0554	04/01/99	04/01/00	GENERAL AGGREGATE	$	2,000,000
	X COMMERCIAL GENERAL LIABILITY				PRODUCTS - COMP/OP AGG	$	2,000,000
	CLAIMS MADE X OCCUR				PERSONAL & ADV INJURY	$	1,000,000
	OWNER'S & CONTRACTOR'S PROT				EACH OCCURRENCE	$	1,000,000
					FIRE DAMAGE (Any one fire)	$	1,000,000
					MED EXP (Any one person)	$	5,000
B	AUTOMOBILE LIABILITY	CA00200302(AOS)	04/01/99	04/01/00	COMBINED SINGLE LIMIT	$	1,000,000
	X ANY AUTO	CA00200303(TEXAS)					
	ALL OWNED AUTOS	CA00200304(VIRGINIA)			BODILY INJURY (Per person)	$	
	SCHEDULED AUTOS	CA060MA4053(MASS)					
	X HIRED AUTOS				BODILY INJURY (Per accident)	$	
	X NON-OWNED AUTOS						
					PROPERTY DAMAGE	$	
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	$	
	ANY AUTO				OTHER THAN AUTO ONLY		
					EACH ACCIDENT	$	
					AGGREGATE	$	
C	EXCESS LIABILITY	BE7012371	04/01/99	04/01/00	EACH OCCURRENCE	$	1,000,000
	X UMBRELLA FORM				AGGREGATE	$	1,000,000
	OTHER THAN UMBRELLA FORM					$	
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	RMWC3472356	01/01/99	01/01/00	X STATUTORY LIMITS		
	THE PROPRIETOR/ PARTNERS/EXECUTIVE OFFICERS ARE ___ INCL ___ EXCL	RMWC3472357 CALIF.			EACH ACCIDENT	$	1,000,000
					DISEASE - POLICY LIMIT	$	1,000,000
					DISEASE - EACH EMPLOYEE	$	1,000,000
C	OTHER PROFESSIONAL LIAB (ERRORS & OMISSIONS)	8192779	04/01/99	04/01/00	$2,000,000 EACH CLAIM $2,000,000 AGGREGATE		

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/SPECIAL ITEMS (LIMITS MAY BE SUBJECT TO RETENTIONS)

CERTIFICATE HOLDER

PACCAR, INC.
PO BOX 1518
BELLEVUE, WA 98009

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING COMPANY WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO MAIL SUCH NOTICE SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE COMPANY, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

ACORD 25-S (3/93)

© ACORD CORPORATION 1993

ADDITIONAL INFORMATION

ISSUE DATE (MM/DD/YY)
08/02/99

PRODUCER
MARSH USA RISK &
INSURANCE SERVICES
P.O. BOX 193880
SAN FRANCISCO, CA 94119-3880
LICENSE #0437153

CERTIFICATE HOLDER
PACCAR, INC.
PO BOX 1518
BELLEVUE, WA 98009

INSURED
DAMES & MOORE GROUP & THEIR
WHOLLY OWNED SUBSIDIARIES
911 WILSHIRE BOULEVARD
SUITE 700
LOS ANGELES, CALIFORNIA 90017

TEXT

WORKERS' COMPENSATION:
RMWC3472500 (ID) INSURANCE CO. OF THE STATE OF PENNSYLVANIA
WC3472358 (OR) NATIONAL UNION FIRE INS. CO. OF PITTSBURGH
WC3472358 (WI) NATIONAL UNION FIRE INS. CO. OF PITTSBURGH
TBD (TX) NATIONAL UNION FIRE INS. CO. OF PITTSBURGH
1810025237 (ME) MAINE EMP. MUTUAL (04/01/99 TO 04/01/00)

It is agreed that the certificate holder is additional insured hereunder as respects liability for loss, damage and expense caused by any negligent act or omission of the named insured, or its personnel during the performance of its services. This endorsement shall be applicable only up to the limit of liability specified in this certificate of insurance. This insurance does not include the obligation to defend the certificate holder in any case in which any claim is made by any third party for damages not covered by this endorsement. Additional Insured wording does not apply to Workers Compensation, Professional Liability or Contractors Pollution Liability.

The term "insured" shall be used severally and not collectively, but this provision shall in no way increase the total each loss and annual aggregate limits otherwise available under the policy.

AMENDMENT NO. 3 TO LEASE

December 20, 1999

This is AMENDMENT NO. 3 (this "Amendment") to that certain Lease dated as of September 15, 1993 (as previously amended, the "Lease") by and between PACCAR Inc, a Delaware corporation, successor in title to Trico Industries, Inc., a California corporation ("Landlord") and Dynateck America, Inc. and Mighty Enterprises, Inc., each a California corporation (collectively, "Tenant").

Monthly rent has not changed since September 1995, and Landlord desires to increase the rent to reflect current market conditions. The term of the Lease is month-to-month, and notice to increase rent must be given to Tenant at least one month in advance of the increase. Landlord and Tenant have agreed that the rent shall increase effective February 1, 2000.

In consideration of the agreements in this Amendment, Landlord and Tenant do hereby amend the Lease as follows:

1. Lease Paragraph 2 RENT AND SECURITY DEPOSIT is hereby amended to increase the rent from FIVE THOUSAND DOLLARS to EIGHT THOUSAND DOLLARS ($8,000) per month effective February 1, 2000. Tenant shall deposit an additional $3000 on or before February 1 as an additional security deposit. Landlord acknowledges that it holds $5,000 as a security deposit from Tenant.

2. Lease Subparagraph 13.8 of MISCELLANEOUS PROVISIONS is amended to change Landlord's address for notices and payment of rent to the following:

   PACCAR Inc
   PO Box 1518 (777 106th Avenue NE)
   Bellevue WA 98009 (98004)
   Attn: Director of Corporate Services

   Telephone (425) 468-7519
   Fax (425) 468-8213
   E Mail dan.lewis@paccar.com

Except as modified by this Amendment and by Amendments 1 and 2 to Lease, the Lease remains in full force and effect and is hereby ratified and confirmed.

TENANT: Dynateck America, Inc.	TENANT: Mighty Enterprises, Inc.	LANDLORD: PACCAR Inc
By:	By:	By:
Its: Owner	Its: Owner	Richard E. Bangert II Its: Vice President

December 20, 1995

AMENDMENT NO. 1 TO LEASE

This is AMENDMENT NO. 1 TO LEASE (this "Amendment") to that certain Lease dated as of September 15, 1993 (the "Lease") by and between TRICO INDUSTRIES, INC., a California corporation ("Landlord") and DYNATECK AMERICA, INC., a California corporation ("Tenant").

Landlord and Tenant have agreed to amend the Lease effective September 15, 1995. In consideration of the agreements in this Amendment, Landlord and Tenant do hereby amend the Lease as follows.

1. Effective September 15, 1995 and without releasing Dynateck America, Inc. from any of its obligations under the Lease, the tenant under the Lease will be both MIGHTY ENTERPRISES, INC. (a California corporation) and DYNATECK AMERICA, INC. as tenants in common, hereafter referred to as Tenant, and such Tenants' liability under this Lease shall be joint and several.

2. Lease Paragraph 1 TERM AND PREMISES is hereby amended to expand the leased premises to include all of the real property and improvements thereon located at 1206 West 196th Street as legally described on Schedule 1 to this Amendment ("Expanded Premises"). The term will continue to be month-to-month, but the notice period required for termination of the Lease by either party shall be increased from thirty days to ninety days.

3. Lease Paragraph 2 RENT AND SECURITY DEPOSIT is hereby amended to increase the rent from ONE THOUSAND DOLLARS to FIVE THOUSAND DOLLARS ($5,000.00) per month effective September 15, 1995. Landlord acknowledges the receipt on September 7, 1995 of three checks for ONE THOUSAND DOLLARS ($1,000.00) each representing rent due for July, August and September 1995 and receipt on October 30, 1995 of Check No. 10082 in the amount of TEN THOUSAND FIVE HUNDRED DOLLARS ($10,500 - representing additional security deposit of $4,000, the balance of September 1995 rent in the amount of $1,500 and October 1995 rent in the amount of $5,000).

4. The last sentence of Lease Subparagraph 3.3 (d) BASELINE shall be deleted in its entirety and replaced with the following sentence. "The tenant shall not be responsible for cleanup of any contamination resulting from pre-existing conditions on the property referred to in the Preliminary Site Characterization Report dated July 12, 1995 prepared by H2O Science, Inc. for Mighty U.S.A., Inc and Trico Industries, Inc. (the H2O Report) and the various environmental reports theretofore conducted on the Property, including those referred to in the H2O Report."

PACCAR 00892

5. Lease Paragraph 4 MAINTENANCE AND REPAIRS shall be amended to provide that Landlord, at Landlord's expense, shall maintain and repair the foundations and structural members (excluding roofs) of the improvements on the Expanded Premises.

6. Lease Subparagraph 13.1 of MISCELLANEOUS PROVISIONS is amended to provide that Landlord shall have unimpeded access to the Expanded Premises for purposes of inspection, testing, remediation and monitoring of any contamination.

7. Lease Subparagraph 13.8 of MISCELLANEOUS PROVISIONS is amended to change Landlord's address for notices and payment of rent to the following:

Trico Industries, Inc.
2503 Hunter Road
San Marcos, Texas 78666
Attn: Credit Manager

Except as modified by this Amendment the Lease remains in full force and effect and is hereby ratified and confirmed.

TENANT:

DYNATECK AMERICA, INC.

By: [signature]
Its: President

MIGHTY ENTERPRISES, INC.

By: [signature]
Its: President

19706 South Normandie Avenue
Torrance, California 90502
Telephone: 310/516-7478
Fax: 310/516-0368

LANDLORD: TRICO INDUSTRIES, INC.

By: [signature]
Its: Vice Chairman

PACCAR Inc

VIA CERTIFIED MAIL RETURN RECEIPT

December 5, 2000

Mighty Enterprises, Inc.
19706 S. Normandie Ave
Torrance, CA 90502

Attn: Peter Tsai

Subject: Handling and Storage of Oils on Site

Dear Peter:

As you know our consultant has been on-site recently for environmental investigations. During their last visit, which was to remove barrels containing waste from their operations, they observed two extra barrels near the ones they were removing. They apparently contained cutting oils. They left them there because they obviously were not theirs. They also observed that there were operating machines in a couple of buildings with attendant waste oils. Some of this activity was near floor sumps.

Under terms of the lease, Section 3.3, Hazardous Substances, Tenant may, without Landlord's prior consent, use any ordinary and customary materials reasonably required to be used by Tenant in the normal course of Tenant's business permitted on the Premises, so long as such use is not a Reportable Use and does not expose the Premises or neighboring properties to any meaningful risk of contamination or damage or expose Landlord to any liability therefor.

Tenant is requested to review the subject barrels and machine waste oil operations and provide written report notice to Landlord by 12/15/00 stating the reason while such barrels and operations are not Reportable Use under terms of the lease. If subject barrels and/or machine waste operations are Reportable Use, Tenant is to request Landlord's consent as is required under terms of the lease.

Very truly yours,

Dan Lewis 12/5

Daniel N. Lewis
Director of Construction & Corporate Services
dan.lewis@paccar.com

DNL:
cc: File
PEG
REB
L. Sims
David Gurewitz, Attorney at Law, 4108A Highland Ave., Manhattan Beach, CA 90266;
Fax (310_ 546-4497

REGISTERED

PACCAR Inc

Helen,
Please ensure that the invoice for Feb rent is $ 8,000.
Thanks,
Dan
1/5/00

December 21, 1999

Mr. Peter Tsai
Dynatech of America
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrence, CA 90502

Dear Mr. Tsai:

On November 30, 1999, through a letter from Mr Phil Gladfelter to David Gurewitz, Esq., PACCAR renewed it's interest and the terms on which it would enter into an agreement for Bonchester/Tsai to acquire the PACCAR Torrance property. To date, no response has been received to that letter.

With no intent to preclude or discourage further discussion and possible agreement on a lease/sale agreement, notice is hereby given that effective February 1, 2000 rent under the existing month to month rental is increased from $5,000 per month to $8,000 per month. Lease Amendment No. 3 for this change is attached for your signature. Please sign and return it. Should you not agree with this increase in rent, PACCAR is prepared to give notice of termination of the lease.

Our invoice to you for February 2000 rent will reflect this change. Please make this adjustment to your rent beginning with the rent check due February 1, 2000.

Very truly yours,

Dan Lewis 12/22

Daniel N. Lewis
Director of Corporate Services

DNL:hlb

Attachments

cc: Phil Gladfelter
R.E. Bangert II
J. Carver
File: TRICO Torrance

P.O. Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N.E. Bellevue Washington 98004

REGISTERED

PACCAR Inc

Helen,
Please ensure that the invoice for Feb rent is $ 8,000.
Thanks,
Dan
1/5/00

December 21, 1999

Mr. Peter Tsai
Dynatech of America
Mighty Enterprises, Inc.
19706 South Normandie Ave.
Torrence, CA 90502

Dear Mr. Tsai:

On November 30, 1999, through a letter from Mr Phil Gladfelter to David Gurewitz, Esq., PACCAR renewed it's interest and the terms on which it would enter into an agreement for Bonchester/Tsai to acquire the PACCAR Torrance property. To date, no response has been received to that letter.

With no intent to preclude or discourage further discussion and possible agreement on a lease/sale agreement, notice is hereby given that effective February 1, 2000 rent under the existing month to month rental is increased from $5,000 per month to $8,000 per month. Lease Amendment No. 3 for this change is attached for your signature. Please sign and return it. Should you not agree with this increase in rent, PACCAR is prepared to give notice of termination of the lease.

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Very truly yours,

Dan Lewis 12/22

Daniel N. Lewis
Director of Corporate Services

DNL:hlb

Attachments

cc: Phil Gladfelter
R.E. Bangert II
J. Carver
File: TRICO Torrance

P.O. Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N.E. Bellevue Washington 98004

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

Date: December 23, 1999

To: Mr. Daniel Lewis Fax No. (425) 468-8228

From: David Gurewitz Fax No. (310) 546-4497

Re: 1206 West 196th Street File No. 4009

Number of pages sent 3 including cover page.
If transmission is incomplete please call (310) 545-5696.

NOTICE OF CONFIDENTIALITY

The pages comprising this facsimile transmission contain confidential information from David M. Gurewitz, Attorney at Law. This information is intended solely for use by the individual or entity named as the recipient hereof. If you are not the intended recipient, be aware that any disclosure, copying, distribution, or use of the contents of this transmission is prohibited. If you have received this transmission in error, please notify us by telephone immediately so we may arrange to retrieve this transmission at no cost to you.

ATTACHMENT:

A letter dated December 23, 1999 from David M. Gurewitz.

cc: Lewis / Bangert / Butler
12/28

cc: DNL
File Torrance

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5598
FAX (310) 546-4497

December 23, 1999

By Fax (425) 468-8228

Daniel Lewis, Director
Corporate Services
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Re: ***My Client: Bonchester International, Ltd./Mighty Enterprises, Inc./In Re: 1206 West 196th Street, Torrance, California***
My File No. 4009

Dear Mr. Lewis:

Your December 21, 1999 letter addressed to Mr. Tsai has been referred to me for response.

With respect to the first Paragraph of your said letter, please understand that neither I nor my associate counsel, Patrick Del Duca, understood Mr. Gladfelter's November 30, 1999 letter to me to indicate that Paccar, Inc. ("Paccar") was willing to sell the above-referenced property.

If Paccar is willing to sell the above-referenced property, Bonchester International Limited is willing to purchase same upon the terms previously negotiated, subject only to mutual satisfactory conclusion of the issue of who is responsible for legal liability attendant to existing environmental problems which affect the above-referenced real property.

Since it appears that there are communication problems between my side and Paccar's side, perhaps an in face meeting is appropriate. Bonchester's position has been, and remains, that Paccar should remain responsible for the existing environmental problems which affect the subject real property. If Paccar agrees with this concept, then we can move forward to conclude a purchase and sale transaction.

With respect to your notice of rent increase, I find it draconion, and outside the spirit of the relationship and negotiations between Paccar and my clients, not to mention outside the spirit of the season.

C:\DATA\WPDATA\4009\Lewis 1223.wpd

Upon your receipt and review of this letter, please call so that we may discuss directly between us an agreement to purchase and sale the subject real property.

Very truly yours,

David M. Gurewitz

DMG:lml

cc: Phil Gladfelter (By Fax (425) 468-8228)
Eric Harold (By Fax (310) 327-6259)
Mighty Enterprises, Inc. (By Fax (310) 516-0368)
Bonchester Intl. Ltd.
Patrick Del Duca (By Fax (213) 688-8150)

C:\DATA\WPDATA\4009\Lewis 1223.wpd

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

Date: December 23, 1999

To: Mr. Daniel Lewis Fax No. (425) 468-8228

From: David Gurewitz Fax No. (310) 546-4497

Re: 1206 West 196th Street File No. 4009

Number of pages sent 3 including cover page.
If transmission is incomplete please call (310) 545-5696.

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ATTACHMENT:

A letter dated December 23, 1999 from David M. Gurewitz.

cc: Lewis / Bangert / Butler
12/28

cc: DNL
File Torrance

DAVID M. GUREWITZ
ATTORNEY AT LAW

4106-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

December 23, 1999

By Fax (425) 468-8228

Daniel Lewis, Director
Corporate Services
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Re: ***My Client: Bonchester International, Ltd./Mighty Enterprises, Inc./In Re: 1206 West 196th Street, Torrance, California***
My File No. 4009

Dear Mr. Lewis:

Your December 21, 1999 letter addressed to Mr. Tsai has been referred to me for response.

With respect to the first Paragraph of your said letter, please understand that neither I nor my associate counsel, Patrick Del Duca, understood Mr. Gladfelter's November 30, 1999 letter to me to indicate that Paccar, Inc. ("Paccar") was willing to sell the above-referenced property.

If Paccar is willing to sell the above-referenced property, Bonchester International Limited is willing to purchase same upon the terms previously negotiated, subject only to mutual satisfactory conclusion of the issue of who is responsible for legal liability attendant to existing environmental problems which affect the above-referenced real property.

Since it appears that there are communication problems between my side and Paccar's side, perhaps an in face meeting is appropriate. Bonchester's position has been, and remains, that Paccar should remain responsible for the existing environmental problems which affect the subject real property. If Paccar agrees with this concept, then we can move forward to conclude a purchase and sale transaction.

With respect to your notice of rent increase, I find it draconion, and outside the spirit of the relationship and negotiations between Paccar and my clients, not to mention outside the spirit of the season.

C:\DATA\WPDATA\4009\Lewis 1223.wpd

Upon your receipt and review of this letter, please call so that we may discuss directly between us an agreement to purchase and sale the subject real property.

Very truly yours,

David M. Gurewitz

DMG:lml

cc: Phil Gladfelter (By Fax (425) 468-8228)
Eric Harold (By Fax (310) 327-6259)
Mighty Enterprises, Inc. (By Fax (310) 516-0368)
Bonchester Intl. Ltd.
Patrick Del Duca (By Fax (213) 688-8150)

C:\DATA\WPDATA\4008\Lewis 1223.wpd

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

Date: December 23, 1999

To: Mr. Daniel Lewis Fax No. (425) 468-8228

From: David Gurewitz Fax No. (310) 546-4497

Re: 1206 West 196th Street File No. 4009

Number of pages sent 3 including cover page.
If transmission is incomplete please call (310) 545-5696.

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ATTACHMENT:

A letter dated December 23, 1999 from David M. Gurewitz.

cc: Lewis / Bangert / Butler
12/28

cc: DNC
File Torrance

DAVID M. GUREWITZ
ATTORNEY AT LAW

4106-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 546-5896
FAX (310) 546-4497

December 23, 1999

By Fax (425) 468-8228

Daniel Lewis, Director
Corporate Services
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Re: ***My Client: Bonchester International, Ltd./Mighty Enterprises, Inc./In Re: 1206 West 196th Street, Torrance, California***
My File No. 4009

Dear Mr. Lewis:

Your December 21, 1999 letter addressed to Mr. Tsai has been referred to me for response.

With respect to the first Paragraph of your said letter, please understand that neither I nor my associate counsel, Patrick Del Duca, understood Mr. Gladfelter's November 30, 1999 letter to me to indicate that Paccar, Inc. ("Paccar") was willing to sell the above-referenced property.

If Paccar is willing to sell the above-referenced property, Bonchester International Limited is willing to purchase same upon the terms previously negotiated, subject only to mutual satisfactory conclusion of the issue of who is responsible for legal liability attendant to existing environmental problems which affect the above-referenced real property.

Since it appears that there are communication problems between my side and Paccar's side, perhaps an in face meeting is appropriate. Bonchester's position has been, and remains, that Paccar should remain responsible for the existing environmental problems which affect the subject real property. If Paccar agrees with this concept, then we can move forward to conclude a purchase and sale transaction.

With respect to your notice of rent increase, I find it draconion, and outside the spirit of the relationship and negotiations between Paccar and my clients, not to mention outside the spirit of the season.

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Upon your receipt and review of this letter, please call so that we may discuss directly between us an agreement to purchase and sale the subject real property.

Very truly yours,

David M. Gurewitz

DMG:lml

cc: Phil Gladfelter (By Fax (425) 468-8228)
Eric Harold (By Fax (310) 327-6259)
Mighty Enterprises, Inc. (By Fax (310) 516-0368)
Bonchester Intl. Ltd.
Patrick Del Duca (By Fax (213) 688-8150)

C:\DATA\WPDATA\4009\Lewis 1223.wpd

Registered, Return Receipt

PACCAR Inc

January 6, 2000

Mr. Peter Tsai
Dynatech of America
Mighty Enterprises, Inc.
19706 South Normandie Avenue
Torrance, CA 90502

SUBJECT: Rent Increase

Dear Mr. Tsai:

We had a good exchange of ideas yesterday with David Gurewitz and Patrick Del Duca about disposition of PACCAR's Torrance property. We look forward to receiving any additional proposals you and your affiliates may wish to make.

Confirming statements PACCAR made during the phone call and in my letter of December 21, 1999, PACCAR has given notice of a rent increase to $8,000 per month effective February 1, 2000. Lease Amendment No. 3 (attached) for the change in rent was sent with my letter on December 21, 1999. In the event that you do not sign and return this lease amendment, and pay rent of $8,000 effective February 1, then this letter constitutes PACCAR's further notice of termination of the lease effective 90 days after February 1, 2000, (that is May 1, 2000), in accordance with Lease Amendment No. 1 (attached), dated December 20, 1995, Item 2 "Lease Paragraph 1 TERM AND PREMISES ....", except only as PACCAR may subsequently agree otherwise in writing.

Please advise if you have any questions.

Sincerely,

Dan Lewis, 1/6/00

Daniel N. Lewis
Director of Corporate Services

DNL:hlb

attachments

cc: John Carver
R.E. Bangert II
P. E. Gladfelter
David Gurewitz
File: Torrence

P.O. Box 1518 Bellevue, Washington 98009 Telephone (425) 468-7400
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004

AMENDMENT NO. 3 TO LEASE

December 20, 1999

This is AMENDMENT NO. 3 (this "Amendment") to that certain Lease dated as of September 15, 1993 (as previously amended, the "Lease") by and between PACCAR Inc, a Delaware corporation, successor in title to Trico Industries, Inc., a California corporation ("Landlord") and Dynateck America, Inc. and Mighty Enterprises, Inc., each a California corporation (collectively, "Tenant").

Monthly rent has not changed since September 1995, and Landlord desires to increase the rent to reflect current market conditions. The term of the Lease is month-to-month, and notice to increase rent must be given to Tenant at least one month in advance of the increase. Landlord and Tenant have agreed that the rent shall increase effective February 1, 2000.

In consideration of the agreements in this Amendment, Landlord and Tenant do hereby amend the Lease as follows:

1. Lease Paragraph 2 RENT AND SECURITY DEPOSIT is hereby amended to increase the rent from FIVE THOUSAND DOLLARS to EIGHT THOUSAND DOLLARS ($8,000) per month effective February 1, 2000. Tenant shall deposit an additional $3000 on or before February 1 as an additional security deposit. Landlord acknowledges that it holds $5,000 as a security deposit from Tenant.

2. Lease Subparagraph 13.8 of MISCELLANEOUS PROVISIONS is amended to change Landlord's address for notices and payment of rent to the following:

   PACCAR Inc
   PO Box 1518 (777 106th Avenue NE)
   Bellevue WA 98009 (98004)
   Attn: Director of Corporate Services

   Telephone (425) 468-7519
   Fax (425) 468-8213
   E Mail dan.lewis@paccar.com

Except as modified by this Amendment and by Amendments 1 and 2 to Lease, the Lease remains in full force and effect and is hereby ratified and confirmed.

TENANT: Dynateck America, Inc.	TENANT. Mighty Enterprises, Inc.	LANDLORD: PACCAR Inc
By:_____	By:_____	By:_____ Richard E. Bangert II
Its:_____	Its:_____	Its: Vice President

Dan Lewis

To: Phil Gladfelter
Cc: Richard Bangert
Subject: Trico - Torrence

For your information, I have received Feb rent for the Torrence Property of $8,000. ($3,723 from Mighty Enterprises and $4,277 from Dynatech). I do not have a copy of the signed lease amendment and am continuing to pursue this with John Carver. If unsuccessful there I will call Peter Tsai.

Regards,

Dan Lewis

Director of Corporate Services
PACCAR Inc
Ph: (425) 468-7519
Fax: (425) 468-8213
dan.lewis@paccar.com

HTY ENTERPRISES INC.
S. NORMANDIE AVE. 310-516-7478
19706
TORRANCE, CA 90502

FEB 01 2000

THE PACIFIC BANK
Los Angeles, CA 90017
16-4011/1220

001201-09

025264

CHECK NO.	CHECK DATE	VENDOR NO.
25264	1/31/00	*****

PAY

3723 00

CHECK AMOUNT
$3,723.00

TO THE ORDER OF: PACCAR

MIGHTY ENTERPRISES INC.

AUTHORIZED SIGNATURE

⑈025264⑈ ⑆122040113⑆ 5150⑈602531⑈

001201-09

DYNATECK AMERICA, INC.
19706 S NORMANDIE AVE.
TORRANCE, CA 90502

THE PACIFIC BANK
3287 WILSHIRE BOULEVARD
LOS ANGELES, CA 90010
16-4011-1220

FEB 01 2000

5119

CHECK NO	CHECK DATE	VENDOR NO
005119	01/31/00	PACCA1

PAY

FOUR THOUSAND TWO HUNDRED SEVENTY-SEVEN**********
AND 00/100 DOLLARS**********

CHECK AMOUNT
$********4,277.00

TO THE ORDER OF

PACCAR INC.
P.O. BOX 1518

BELLEVUE WA 98009

⑈005119⑈ ⑆122040113⑆ 5150⑈603255⑈

Hartoy Inc.
1967 10th Avenue North
Lake Worth, FL 33461-3361

FEB 01 2000

CITIBANK, FEDERAL SAVINGS BANK
PALM BEACH, FL 33450
63-8655/2660

090206-99

14648

1/25/00

PAY TO THE ORDER OF Paccar, Inc. $ **2,366.56

Two Thousand Three Hundred Sixty-Six and 56/100********** DOLLARS

Security features included. Details on back.

Paccar, Inc.
Attn: Law Department
777 106th Avenue NE
PO Box 1518
Bellevue, WA 98009

MEMO SEMI-ANNUAL 1999 2ND

DAVID M. GUREWITZ
ATTORNEY AT LAW

4108-A HIGHLAND AVENUE
MANHATTAN BEACH, CALIFORNIA 90266

TELEPHONE (310) 545-5696
FAX (310) 546-4497

February 11, 2000

Daniel Lewis, Director
Corporate Services
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Richard E. Bangert, II
Vice President
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Phil Gladfelter
Corporate Real Property Manager
PACCAR, Inc.
Post Office Box 1518
Bellevue, Washington 98004

Re: ***1206 West 196th Street, Torrance, California***
My File No. 4009

Gentlemen:

The purpose of this letter is to report back to your on the progress made with respect to attempting to obtain environmental insurance to facilitate a sale of the above-referenced property from PACCAR, Inc. to Bonchester International LTD.

I am herewith enclosing the E-Mail Patrick Del Duca, my associate counsel, received from Greg Chamberlain at ERIC Companies.

As you can see, the response is that Mighty Enterprises, Inc. ("Mighty") is able to obtain coverage for its liability. The basis behind the insurer's willingness to provide coverage for Mighty is the viability for Mighty of an "innocent purchaser defense." In the analysis of the insurer, Mighty is not responsible for whatever may have occurred on the watch of prior owners. However, such insurance coverage would not extend to PACCAR, Inc. to cover PACCAR's existing liability for existing environmental problems.

C:\DATA\WPDATA\4009\PACCAR 2 11 00.wpd

With the insurance coverage which would apparently be available to Mighty, Mighty would be willing to purchase the subject property with an agreement from PACCAR, Inc. that it would indemnify Mighty for the first $600,000.00 of defense costs/indemnity with respect to existing environmental problems.

Such a sale would result in PACCAR, Inc. obtaining money from the property immediately. In connection with such a sale, PACCAR, Inc. would assume no additional environmental liability beyond that to which it already is now subject. Mighty would be willing to obtain an environmental audit to confirm that its activities do not raise environmental concerns, and Mighty would agree to allow PACCAR, Inc. access to the property for any testing and/or remediation that needs to be done from time to time in the future. Because of the quantity of existing environmental information relative to the property, the nature of the environmental audit would not be to undertake any further testing or analysis of soil or groundwater conditions. Rather, it would be in the nature of a compliance review to confirm the lack of any environmental concern raised by Mighty's activities.

I would request that you review this letter and the enclosed and contact me to advise as to whether you believe there is the basis for making a deal on a sale of the property. Please note that I will be on vacation the next two weeks, so if you are unable to get back to me before the end of this week, please respond on or after February 28, 2000.

Very truly yours,

David M. Gurewitz

DMG:lml
Enclosure
cc: Peter Tsai (by fax w/enclosure)
Eric Harold (By Fax (310) 327-6259 w/enclosures)
Patrick Del Duca (by E-Mail)

C:\DATA\WPDATA\4009\PACCAR 2 11 00.wpd

Subject: FW: Mighty USA
Date: Thu, 3 Feb 2000 20:07:33 -0500
From: "Del Duca, Patrick" <PDelDuca@KelleyDrye.com>
To: "'dmgbeachlaw@earthlink.net'" <dmgbeachlaw@earthlink.net>

We should discuss the implications of this at your convenience.

Regards.

> *Patrick Del Duca, Esq.*
> *Kelley Drye & Warren LLP*
> *777 South Figueroa Street,*
> *Twenty-seventh floor*
> *Los Angeles, CA 90017*
> *USA*
> *Tel: 213/688-8203*
> *Fax: 213/688-8150*
> *E-mail: pdelduca@kelleydrye.com*
> *http://www.kelleydrye.com/*
>
> *Kelley Drye & Warren LLP is an international law firm with branch and affiliate offices in Los Angeles, Bangkok, Brussels, Chicago, Hong Kong, Jakarta, Manila, Mumbai, New York, Parsippany, Stamford, Tokyo, and Washington, D.C.*
>

-----Original Message-----
From: Greg Chamberlin [mailto:gchamberlin@ericcompanies.com]
Sent: Thursday, February 03, 2000 3:11 PM
To: pdelduca@kelleydrye.com
Subject: Mighty USA

Patrick,

The underwriter has pretty well gone through the box of material submitted on this site and has had some discussions within their group. She feels that they can probably provide coverage for Mighty USA for the property they are looking to acquire from Paccar. However, this coverage would not extend to Paccar nor would it pick up liability Mighty USA assumes through the sales agreement or other contract. It is anticipated that the premium for coverage ($5 million limit, five year term, $600,000 deductible) would be around $100,000.

In order to finalize a coverage proposal, the underwriter would like the following information:

1. Detailed documentation on the activities of Mighty USA on the Paccar site.

2. How long has Mighty USA been a tenant on the Paccar site?

3. Financials on Mighty USA.

Please give me a call if you have any questions.

Thank you,

Greg Chamberlin

Greg Chamberlin, ALCM, ARM
ERIC Companies
98 Inverness Drive East, Suite 100
Englewood, CO 80112
(303) 397-6776 phone
(303) 792-5402 fax

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FOR Dan Lewis

DATE 3-1-00 TIME 1:05 (P.M.)

FROM David Gurewitz

FIRM

PHONE 310-545-5696
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
RETURNED YOUR CALL		WILL CALL AGAIN	
CAME TO SEE YOU		RUSH	
WANTS TO SEE YOU		SPECIAL ATTENTION	
WAITING TO SEE YOU		HOLDING LINE	

MESSAGE
1206 W-196th St.
Torrance CA
follow up
Re: 2/11 letter re

SIGNED

TOPS FORM 4007 MADE IN U.S.A.

MESSAGE

PACCAR Inc

March 18,2000

David M.Gurewitz,Esq.
4108-A Highland Avenue
Manhattan Beach, CA 90266

Re: Your File 4009- 1206 W 196th St Torrance,CA

Dear David,

As promised,I attach a preliminary draft outline of basic terms for sale of the Torrance property to Peter Tsai or affiliates.

This all may be somewhat premature. PACCAR is planning to do some additional characterization testing on the Property in the near future, which hopefully will lead to clearer definition of a soil remediation plan which we would probably then undertake as a voluntary cleanupWe estimate about 12 weeks will be consumed in testing and preparing the reports.However,definition of ground water actions may be more time consuming and uncertain, given the groundwater situation of the site and its environs.So at present we need to know more about the site to estimate the ultimate cost of remediation with any reasonable accuracy.Hopefully the pending testing will tell us a lot more.

We of course will keep discussions going with your client, in the hopes that matters will clarify sooner rather than later, and to the satisfaction of all interests concerned.

The drainage issue mentioned in the outline of terms is reflected in the attached correspondence from our neighbor to the east, R R Donnelly & Sons.

With good wishes,

Very truly yours

Phillip E Gladfelter
Corporate Real Property Manager

Enclosures

Cc: R E Bangert
R K Butler
D Lewis
S R Tekosky,Esq

[illegible] 98009 Telephone (425) 468-7400
[illegible] N.E. Bellevue Washington 98004

TORRANCE SALE TERMS

PACCAR Ideas @ 3/18/00

Sale Price:	$ 800,000 (_conservative_current market value *if clean*,since PACCAR retains cleanup liability). Price is net to PACCAR of sale commissions.
Payment:	All cash at closing. Payment/performance of buyer's obligations to be guaranteed by one or more related entities to satisfaction of PACCAR Credit Dept after full disclosure of financial condition
Buyer:	(to be specified).Current known candidates are Mighty Enterprises, Dynatec of America,Bonchester,Tsai.
Guarantor(s)	(to be specified)(see "Buyer")
Deposits	5% of price deposited at effective date;becomes fully forfeitable after contingency period expires
Closing	Deferred until Seller completes soil remediation after completing baseline testing(ii) and (iii)below(est. 9 mos)
Remedy for default In closing	Deposit forfeiture(if buyer default),or return of deposit(if seller default); Buyer can also elect specific performance as remedy
Contingency period	90 days(extendible for completing seller additional baseline studies)
Environmental	(i)existing studies (delivered to Buyer 9/99),(ii) additional seller studies(now pending) and (iii)any Buyer studies during contingency period all establish baseline conditions for existing contamination(which excludes any tenant contamination).

	Sale is "as-is " subject only to the following Seller undertakings. (ii)Seller retains cleanup liability for remediation costs of baseline contamination at date of sale up to amount of purchase price. Seller retains unlimited and indefinite access and rights to test,characterize, remediate and monitor, including disturbance of site and improvements(which Seller will restore)respecting any matters for which Seller remains legally or contractually liable, under a recordable running covenant.. Seller controls agency negotiations and all litigation/settlements/3rd party claims(including access and testing)(. Seller can excavate/remediate selected known soil contamination before closing. (iii) Buyer solely liable for its preclosing contamination and all new contamination after closing and contamination above Seller liability caps.Buyer hazardous material uses prohibited pending full Seller discharge. Unless Buyer earlier elects to assume all Seller liablity,when Seller reaches $800,000 liability cap or gets agency no action/closure for contamination for which Seller retains responsiblity,all further Seller environmental liability for the property shifts to Buyer, and Seller is discharged. Buyer thereafter controls agency negotiations and / 3rd party claim matters respecting which Buyer is liable, Seller can observe.

	Seller retains reasonable audit rights before and after final transfer of liability to Buyer,including consequences of Buyer use. (iv) Buyer to carry specified environmental liability insurance for ___ years at Buyer's expense, including all deductible exposure.(remediation cost overrun and pollution legal liability are visible coverages) (v) releases,assumptions of risk and cross indemnities between Seller and Buyer to reflect foregoing allocations of risk before and after transfer of all Seller liability to Buyer
Other	Technical disputes over technical issues between parties to be arbitrated before a technical panel Buyer rights against Seller under contract are not assignable by Buyer Seller exclusively retains all rights/causes of action against contributors to baseline contamination on site Buyer to indemnify Seller against offsite drainage claims resulting from surface water drainage from site(RR Donnelly claim)and activities while tenant of site

Torrance sale terms march 18

19681 Pacific Gateway Drive
Torrance, California 90502-11
Telephone (310) 516-3100

3/1/00

Mr. Daniel N. Lewis
Director of Corporate Services
Paccar, Inc.
P.O. Box 1518
Bellvue, WA 98009

Subject: Piped Liquid Discharge from Paccar owned property located at 1206 W. 196th Street in the City of Torrance, California, to property owned by R.R. Donnelley & Sons, Company, located at 19681 Pacific Gateway Drive in the City of Torrance, California

Dear Mr. Lewis:

Several years ago, R.R. Donnelley & Sons constructed a concrete drainage along the western edge of our property line, adjacent to the referenced Paccar facility. This channel was constructed to abate flooding problems experienced during periods of heavy rainfall. Water entering this channel is diverted to our shipping yard, where it then drains away from the property to the local storm drains.

It has recently come to my attention that subsequent to the completion of the drainage channel, an underground pipe has been installed; apparently originating from the Paccar property and draining into this channel. A preliminary investigation indicates that both the discharge patterns and characteristics of the pipes effluent are not consistent with water resulting from rain events (i.e. the discharge is year-round and the water is often discolored and odorous).

The constant presence of this water in the drainage channel has created some maintenance difficulties for our facility. Additionally, and more importantly, we are concerned that this discharge violates the conditions of California's State Water Resources Control Board's Industrial Activities General Storm Water Permit (Permit No. CAS000001). Therefore, we respectfully request that you investigate this matter and take the necessary action required to eliminate this discharge.

Thank you for your time and consideration.

cc: DNL
Bob Butler
File: Trico Torrance

Sincerely,

Chris Gemgnani
Environmental Engineer

Cc:
Monica Roth
Barbara Dowell
Tom Worthington
Storm Water Project Binder

\\LAMFG-SVR-10\VAT\GRP\TRT\Environmental\storm_water\Paccar doc