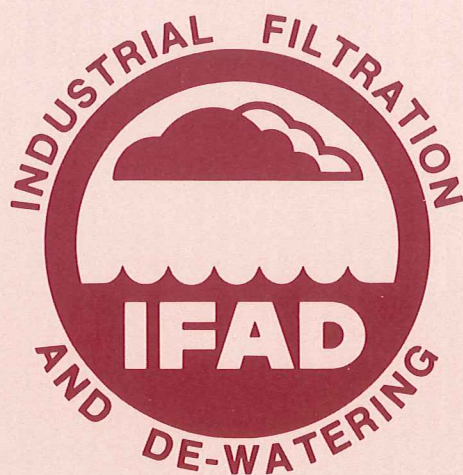


IFAD....

INDUSTRIES' SOLUTION TO FILTRATION AND DEWATERING PROJECTS

"We Have Changed The Way"



IFAD - A DIVISION OF O.H. MATERIALS CORP.

MOBILE

[MOBILE] INDUSTRIAL FILTRATION AND DEWATERING

REDUCED COSTS

Volume reduction is an important factor today.

Federal regulations based upon the Resource Conservation and Recovery Act (RCRA), have dictated minimum dryness cake requirements in many cases.

We at IFAD place great importance on obtaining the driest cake possible to enhance transportation cost and meet federal regulation standards. Our laboratory is equipped with bench scale equipment duplicating our large sludge presses. Analytical results can be obtained in a minimum amount of time.

The end result is savings to all of our customers. Savings can be up to 200% or higher.

Volume Reduction and Clarity



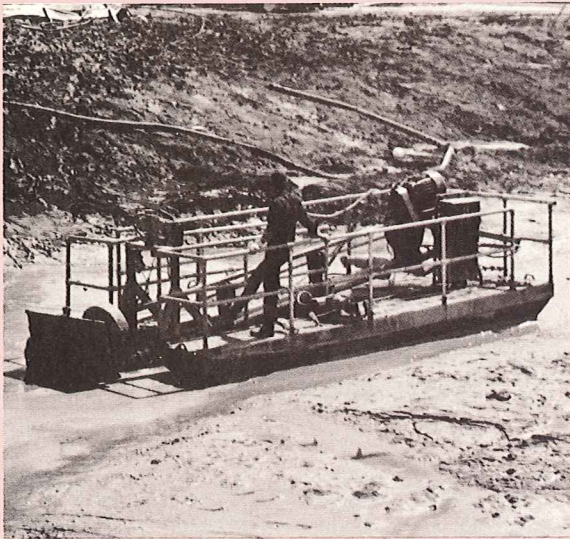
SLUDGE IN



FILTRATE OUT



CAKE OUT

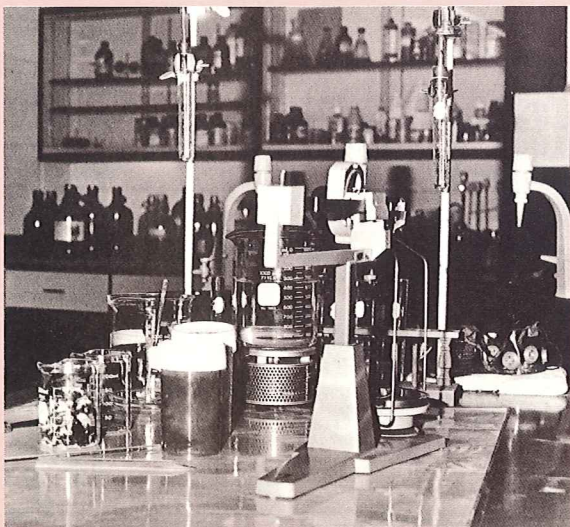


SYSTEM CONCEPT

The sludge press (*figure 1*) consists of a series of recessed plates vertically mounted on horizontal support bars. When the plates are pressed together, chambers are formed between the recessed plates. These chambers become the area for the dry processed cake.

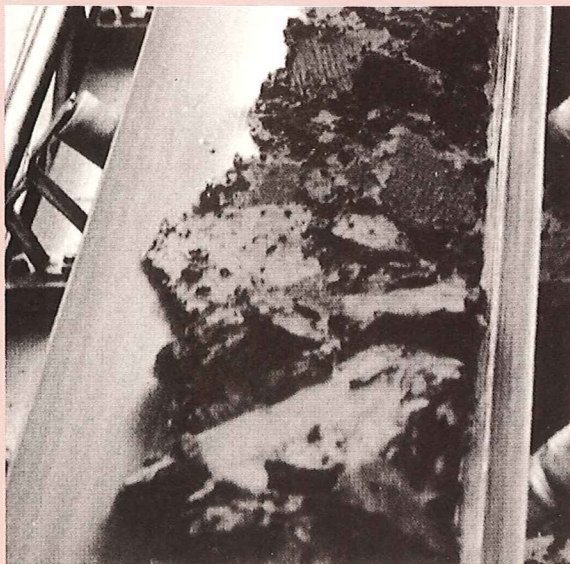
The sludge enters the fluid inlet and flows into the chambers. The cake begins to form on the cloths. The fluid flows through the channels that are built into the plates to the drain ports. These ports allow fluid to enter the filtrate outlets.

If additional chemicals are needed for clarification, they are introduced from the admix tank along with the sludge. When maximum pressure occurs (125 PSI), the chambers are full. The sludge press is then run through a purge cycle with compressed air to remove or squeeze the cake of any remaining fluid. The press is then opened, cake dropped and made ready for the next cycle. This process averages approximately 5 minutes.



DESIGN CRITERIA

The sludge press system consists of one 45' trailer that contains the essential equipment shown in *Figure 2*. There are two 3" diaphragms pneumatically powered to introduce sludge into the press. The press is fully automatic (electrical) and equipped with necessary manifolding. All equipment is permanently welded into a 1000 gallon pollution pan to protect against spills. A conveyor belt is positioned under the sludge press for dropping of processed cake. Another conveyor belt is positioned along side the trailer where cake is discharged from the first conveyor. Processed cake can then be discharged into drop boxes, dump trucks, or drums if necessary. All equipment is completely covered for continued operation during inclement weather conditions. This system conforms to OSHA standards. Support equipment includes pumping barges and high speed mixers.



ENHANCED SYSTEM FLEXIBILITY

Job planning for various type sludges can be a difficult procedure. For the sludge press system, heavy solids, high solids loads, acid sludges etc., are not a problem. The systems' flexibility and extremely durable construction make it ideally suited for harsh chemical conditions. In almost every case, regardless of the condition of the sludge, the sludge press can provide good dry cakes and high clarity fluids. We have proven their effectiveness in a broad range of industrial applications some of which are listed below:

- Pulp and paper plant waste
- Petroleum chemical processing waste
- Plating waste
- Metal hydroxide sludges
- PCB sludges
- Lime treatment sludges
- Product purification by solid-liquid separation
- Slop oil sludges
- Biological sludges

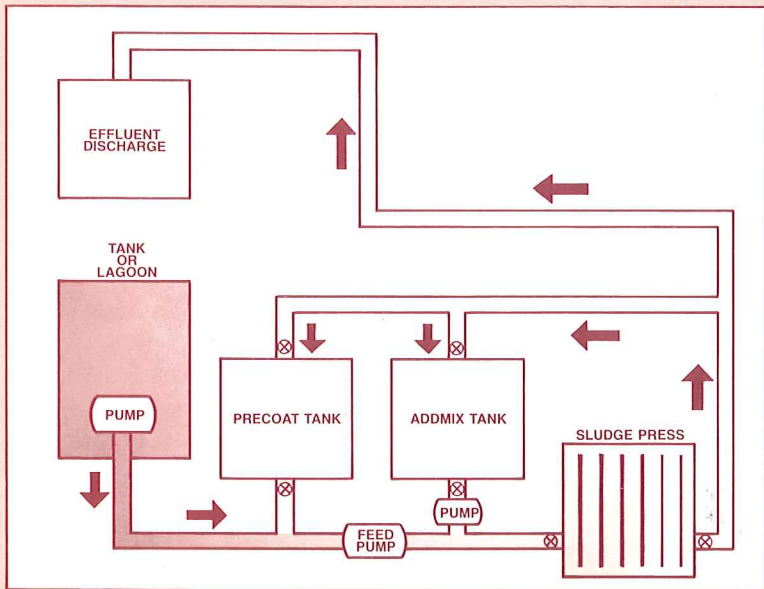


Figure 2 | SLUDGE PRESS SYSTEM

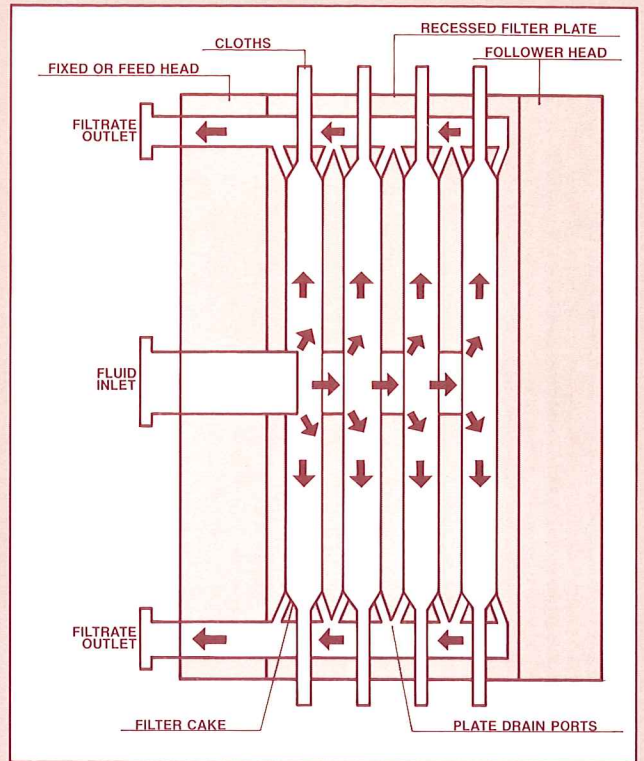


Figure 1 | SLUDGE PRESS FLOW PATH DIAGRAM

INDUSTRIAL FILTRATION AND DE-WATERING
IFAD

COMPANY NAME _____
LOCATION _____
LABORATORY NO. _____

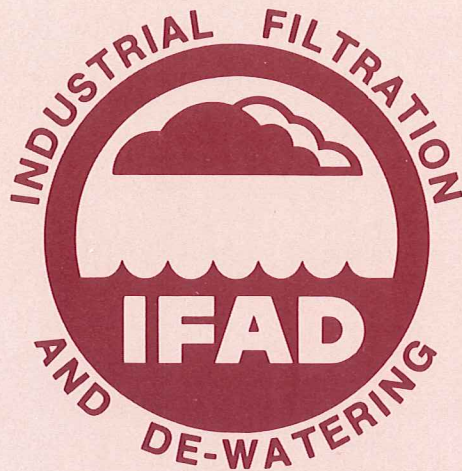
138 DECAL - LAFAYETTE, LOUISIANA 70508
IFAD
ANALYTICAL LABORATORY RESULTS

CITY _____ DATE _____
STATE _____ 19 _____

VOLUME REDUCTION	
Density of sludge sample (lb/ft ³)	
Density of filter cake (lb/ft ³)	
% dry solids by weight (lb/ft ³)	
% dry solids by volume (105°C for _____ hrs.)	
Average gpm flow	
Approximate cycle time (minutes)	
Influent/cycle (gallons)	
Effluent/cycle (gallons)	
Cycles/day	
Total number of cycles/job	
Cake produced/cycle (yd ³)	
Weight/cycle	
Weight/yd ³	
Average daily production (gallons)	
Average daily production (wet yd ³)	
Average daily production (processed yd ³)	
Total produced yd ³ /job	
Total produced tons/job	
Job/estimated number of days to complete	

— SAMPLE EFFLUENT, LIQUID
— SAMPLE PROCESSED CAKE
RESULT BASED ON (Volume) _____

REMARKS:
ALL ANALYTICAL RESULTS ARE BASED UPON THE
EXACTNESS DUE TO UNKNOWN CONDITIONS



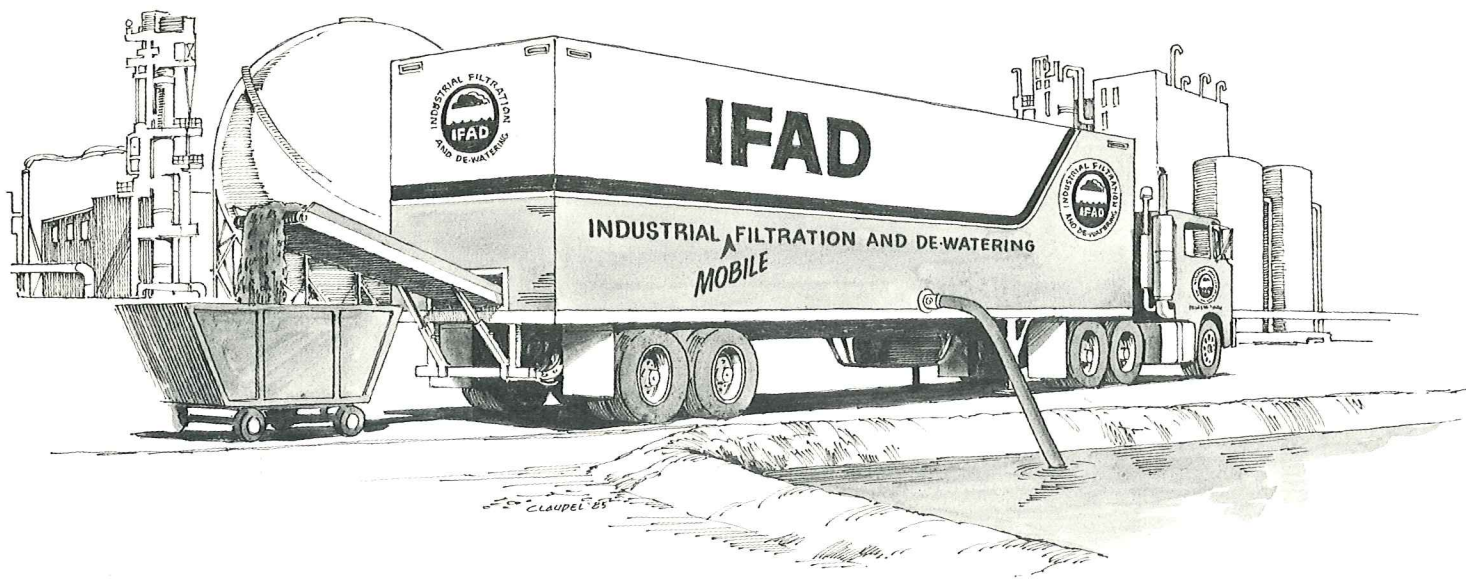
INTRODUCTION

Within industrial markets there exists an expanding requirement for mobile filtration and dewatering units for on site applications. Growing cost and present legislation by the Federal Government requires that the removal of hazardous waste and certain non-hazardous materials be transported in dry cake form.

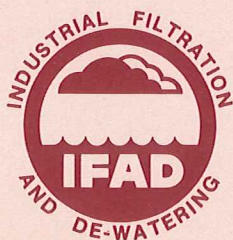
To solve the solid-liquid separation problems, IFAD has developed and constructed mobile filtration and dewatering units. Each unit is trailer mounted and self-contained. Power can be supplied from either the plant's electric system or from an auxiliary electric generator. All mechanical systems are duplicated to provide a fail-safe backup to prevent shutdown of the operation.

Each job situation is specially engineered to determine the most effective and efficient means of solid-liquid separation. Samples are taken and tested to determine the optimum combination of filter media to solid loading. In cases where the dry cake is to be incinerated a special filter media can be provided.

IFAD's staff of degreed professionals include Civil Engineers, Chemists, Microbiologists, and Health and Safety Specialists. We are all dedicated to providing solutions to your dewatering or chemical filtration problems.



**Call the Experts with the solution to all
Your Filtration and Dewatering Projects**



IFAD - A DIVISION OF O.H. MATERIALS CORP.

138 DECAL STREET • LAFAYETTE, LA. 70508 • (318) 234-5264