



# New Coke Drums Successfully Installed at El Segundo Refinery

## Harrod

The coke drums are moving down Sepulveda, on time, as planned, flawlessly.

## Rick Miller, Project Manager, Coke Drum Reliability Project, Chevron

Last year we transported six large coke drums from Spain to the Port of Los Angeles .

## Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron

From there we barged them to King Harbor, Redondo Beach.

## Rod Spackman, Regional Manager, Chevron PGPA

...and then we brought them up one of the most heavily trafficked corridors: Sepulveda Boulevard, starting in Redondo Beach, Hermosa Beach, Manhattan Beach, and then on to El Segundo and into our southern entrance to the refinery.

## Jeff Wilson, Senior Representative, Chevron PGPA

We're very grateful as a refinery for the unprecedented collaboration of both the cities and the communities that worked with us to make the move of the drums successful.

## Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron

But now it's time to remove the six existing coke drums and replace them with the six new coke drums here at the El Segundo Refinery.

## Frank Semancik, General Manager, Chevron El Segundo Refinery

The coker takes the bottom portion of the barrel, which we call resid, and turns it into fuels for airplanes, cars and trucks.

## Jeff Wilson, Senior Representative, Chevron PGPA

The Chevron El Segundo Refinery is a very important asset for Southern California. In fact we supply over 20% of all motor vehicle fuels and nearly half of the jet fuel at LAX.

## Rod Spackman, Regional Manager, Chevron PGPA

These drums are 40 years old, and in practical terms, they've simply reached the end of their useful life.

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### **Frank Semancik, General Manager, Chevron El Segundo Refinery**

In addition to replacing the drums, we made many technological improvements that make the coker facility more reliable and safer. Part of that safety is all the seismic upgrades that we did on the structure itself.

### **Sara Bekr, Structural Engineer, Coke Drum Reliability Project, Fluor**

Back in the 60s, the people that had constructed this, they never thought about replacing these drums.

### **Rick Miller, Project Manager, Coke Drum Reliability Project, Chevron**

It took months and months for us to plan the design for the rigging, for the structure, everything, how we're going to get it out.

### **Sara Bekr, Structural Engineer, Coke Drum Reliability Project, Fluor**

This was a huge challenge.

### **Stephen Young, Construction Manager, Coke Drum Reliability Project, Chevron**

And we decided the most efficient and safest way was actually to lift the entire derrick structure off at once, and replace each drum individually in one shutdown.

### **Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron**

The drilling structure on top was so massively heavy it required a crane, a very big crane.

### **Rick Miller, Project Manager, Coke Drum Reliability Project, Chevron**

This is the largest crane ever brought to Southern California.

### **Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron**

It has the capacity to lift over 3 million pounds.

### **Rick Miller, Project Manager, Coke Drum Reliability Project, Chevron**

The boom on this crane is 400 foot tall. It actually came in by rail, about 70 railcars. It took about four weeks to assemble the crane. The cutting deck and derrick structure weighs over a million pounds. There have been heavier lifts than this and larger lifts than this, but this is a pretty rare combination of physical size and weight.

### **Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron**

When you're lifting this kind of weight, there's no room for error.

### **Rick Miller, Project Manager, Coke Drum Reliability Project, Chevron**

When we actually lifted it, it was perfect. Like a ballet. It came up, came off exactly as planned, almost pirouetted into a position to set on the frame.

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### **Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron**

We spent the next three weeks working around the clock, day and night, removing one coke drum at a time.

### **Frank Semancik, General Manager, Chevron El Segundo Refinery**

What made the project so complex is the drums have been operating for over 40 years, and they weren't in the perfect shape as the new drums going in. And we wanted to do it incident and injury free. After we removed the existing coke drums, next up was to install the new ones. And it's very challenging when you think about swinging almost 300 tons over 300 feet in the air and lowering it in where you have about two and a half inches to play with. And then we had to reattach the coke drum derricks to the top of the structure.

### **Sara Bekr, Structural Engineer, Coke Drum Reliability Project, Fluor**

Knowing how much of our life we've put in this... watching it fly, it was an experience of a lifetime.

### **Mike Crosby, Construction Manager, Coke Drum Reliability Project, Chevron**

I could hear people really clapping their hands and cheering, and you would think that the Space Shuttle was landing.

### **Jeff Wilson, Senior Representative, Chevron PGPA**

This project is part of a significant number of ongoing investments to ensure the refinery continues to operate reliably, efficiently and environmentally responsibly.

### **Stephen Young, Construction Manager, Coke Drum Reliability Project, Chevron**

It's quite amazing to actually see it completed.

### **Frank Semancik, General Manager, Chevron El Segundo Refinery**

I'm very proud of what this team and what the refinery accomplished. A lot of people have exhibited just great creativity, talent, passion and energy to take a project that typically in our industry is very challenging, high-risk tasks, and to do it incident and injury free. And to me that's what operational excellence is about.

### **Rod Spackman, Regional Manager, Chevron PGPA**

From the start of this project almost four years ago, it's been about the teamwork, the engagement of the communities, the unique character of all the personalities that came together to make the project successful. And with that, we've helped secure an important energy resource in Southern California for many decades to come.