# Field Test Tesoro Mojave

## Desi Dunne

**Precision concentric** 

ortunately, I have been testing the new Tesoro Mojave for three months now which has given me some time to decide what I think about it. What could be difficult about it? After all, it's only got just two controls and a switch!

I have tested other Tesoro models for *Treasure Hunting* and have owned many others through the years, and made nice finds with them. But this Mojave is a different beast and if you bear with me I'll try to get my thoughts down and maybe then I will get a handle on it.

There was also the recent sad passing of the landowner of one of my longestablished test sites – rest in peace Mr. O'Driscoll – and the sale of my mostused site. A huge thanks to the Bell Family for allowing me access for many years. There was also the shock of no less than four other sites that I have been eying up for years, suddenly being developed for new housing essentially putting them off limits (I did manage to detect one of them and more later on that).

There is more to why it took longer than usual to test the Mojave but I won't bore you with the details but suffice to say, my usual test routine had been well and truly knocked for six and there the confusion began.

### **The Detector**

So, let's talk about the detector! It's very good-looking, resplendent in yellow and red with a stone arrowhead as its logo. The Mojave desert is located in the South-Western United States and was home to the Mojave Indian tribe.

If you're a U2 fan, it's also where you will find the Joshua Tree National Park. The detector is a cinch to assemble – the instruction manual is good and easy to follow and just one 9-volt battery, which is supplied, runs it for upwards of 18 hours.

The Sensitivity Control has multiple duties – the ON/OFF mode, a battery

Control box.



check and adjusting the level from 1-5. The Ground Condition switch has two positions: HIGH/LOW.

The Discrimination Control has new Colour Zones; white, yellow and red.

You will have to experiment with UK targets to see where they fall.

A speaker dominates the top centre of the tiny control box housing with a louvre grill to prevent water ingress. At the back is the battery compartment and the ¼ inch stereo headphone socket – try to use a headphone with a volume control.

The Mojave comes with a 7 inch Precision Concentric white round waterproof Epsilon 5 pin coil (with cover) and it's this which lends itself to some of the wizardry that allows the detector to do some amazing stuff! Upwards of ten other coils can be used with the detector and these are outlined in the manual. Rumour has it the same coil has been used in the older Troy Shadow 2 detector. (Please note the coil supplied for the American market is brown.)

### A Contaminated Orchard Site

For the first outing with the Mojave, I went to the Bell's old farmstead which I have written about many times before as 'the contaminated orchard site'.

It has also been described in recent editions of *Treasure Hunting* in my Racer 2, Garrett Ace 400i and Garrett AT Pro International Field Tests and, if you have watched my test videos you will have seen the actual fields. So, you will know it's a really trashy, contaminated place and good non-ferrous hits are very rare.

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Battery, coil plug, and headphone jack.



Ground conditions settings.



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Threepence coin with clean examples to show detail.

Sadly, the site is now massively overgrown (allowed to grow throughout the sale process) and it was now difficult to get any usable soil spots at all!

On a previous foray, I dug out some of the area to see what was causing the multiple ferrous hits! Coke, clinker, nails and foil abounded. To compare and contrast I had also brought along a similarly priced Garrett Ace 250.

Suffice it to say a signal was heard as a positive two-way signal with the Mojave while the Ace signalled ferrous to nonferrous so a junk response really and neither did it allow a pin-point response. While the Ace seemed best interpreting the target at a fast coil speed, it became apparent the Mojave preferred a slower sweep speed.

This surprised me as I had been expecting it to be like other Tesoro models that suited quick sweeps, but no, the Mojave definitely appeared to prefer a slower sweep.

The Mojave rang positive and I was very happy to dig out a flat washer of a low conductive material, a similar target to a well-worn thin hammered coin so I was pleased about that. Here I ran some very interesting bench tests and was delighted to see that the Mojave signal for a gold sovereign way past where it ceased signalling on pull tabs, thereby making it a good prospect to use if you regularly search spots with a high proportion of tabs with the chance of the odd gold discovery.

Speaking of gold, as the property was sold and before a new owner might change things, I turned my attention to the front gardens of the old farmhouse to look for a missing ring. I had scanned the gardens a few times before and had made some finds but never really paid it my full attention until now as it was a case of having to at this stage. The amount of metal that surfaced surprised even me, as the Mojave snapped, crackled and popped its way through a maze of targets hidden from view. Some were large, others were small and several



Front garden finds (above).

Spoil heap (below).



coins surfaced often with a nail in the same hole.

A plum weight came up from around 8 inches with a loud signal and it may have been used in the original house construction in the 1800s.

The various parts of a fuel tank cap, toy cars, and a plumbing band had me fooled into thinking it was a man's wedding ring, then a surprise as a tiny Irish threepence surfaced from a few inches, depicting a hare and dated 1961. These coins are a particularly rare find due to their peculiar metallic make up of copper nickel I believe. But the Mojave clattered away on it and I was delighted to recover it in a shiny condition, but it darkened progressively once out of the soil. If I have found a dozen of them in all my years it's a lot and considering 2,400,000 of them were minted, you'd wonder just where they all are? At just 18mm in diameter they're difficult to locate. The sixpence coins of that era are also difficult targets. Sadly, no gold ring surfaced.

#### **Pasture Land**

I should preface this paragraph by saying I wouldn't usually search a pasture field with a cheaper machine especially one with a 7-inch coil, but by now I had some pretty good expectations of the Mojave formed by myself and those of other searchers on the various internet forums. It caused a flutter of activity

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Dug out trackway.





Pasture finds.

when first released simply because the initial release quantity sold out and then the factory ran out of parts, so anyone wanting one would simply have to wait! There were a few interesting posts about it's abilities in trashy situations after other detectors had been used on worked-out sites.

I set up on a beautiful summer's day with low discrimination and sensitivity at it's highest. I ground balanced according to the instructions and I won't go into that here except to say it was the Low setting.

I noted very mild chatter and that signified just how sparky this detector is! I don't know how they did it but this thing is wound up and is very powerful and very lively indeed! It seems to like running hot and not to do so does it a disservice.

I dug everything it reported just to get a feel for what it was telling me and employed my by-now standard Tesoro checks to gain best signal interrogation.

The first few dug were junk aluminium shards which I could tell by the signal volume – they were longer on a double-sweep across indicating a larger target. After lifting the coil up if they remained loud, it wasn't a small item and thirdly using what I call roaming discrimination: increasing the DISC control whilst scanning back and forth and when audio begins to break up and stop altogether then just glance at exactly which area of the coloured zones it's indicating? These shards stopped signalling just after the 'T' in the red zone indicating aluminium.

The next signal was lower in volume, shorter in side-to-side scans and when the DISC was increased it dropped out early in the red zone. I dug out some soil and then removed another slice because it wasn't in the centre. I chased it in the spoil with my pinpointer and eventually located a small conical-shape button. Measuring with the inch scale on the side of the pointer it indicated 4 inches.

Next up was iron – a signal that passed all my tests and indicated as positive. It was deeper at around 10 inches and I could see the orange shape so I didn't dig it out. Then, another signal that had all the traits of button sounds, so I dug it.

I turned back the sod and at the side of the hole saw a green disc. Again, I was off in my pinpointing as the very thin token-like penny size coin was on edge.

This didn't surprise me at all and I had been expecting something of this nature to occur because talk on the Internet referred to poor pinpointing.

I contacted the importer and was advised that "Due to the highly sensitive nature of this detector it could lead to increased locating of on-edge targets, which at first glance might seem like bad pinpointing by the operator before digging."

He was right, I did dig other on the edge coins and most of the time other targets were where I anticipated they would be. I even spent a few hours coin shooting in a park trying to validate whether it was me or the detector!

What I think Tesoro have done is to move the windings a smidgin closer to each other thereby allowing the inner winding to be the hot spot and will signal the target when it's about 1.5 inches in from coil's edge all around it's winding while it can null out for a fraction of a second in the exact coil centre. NB. This applies to on edge items only, otherwise the coil centre remains the most sensitive area. Try it yourself if you have a Mojave. You'll also see the actual sensitivity is equal when the target is flat on and/or side on (edge) and will air test with massive strength, a feat I haven't ever seen before on any coil.

So, if a coin is on edge, when a hole is dug the target isn't in the middle of the hole but can be off to the side by 2 inches. This is a trait I have seen with other detectors and is just one of those things.

### Woodland

I was eager to test the Mojave in woods so I drove to a former test site close by an old village where I had previously done some X-Terra prototype testing. Indeed, a small scattered Georgian hoard had turned up there of mostly bull head and Victorian shillings. So, would the Mojave find more?

It had been many years since then and the wood had become overgrown and difficult to work through. Again, some mild chatter was noted and a possible cause could have been damp leaf mould? I like to max out the sensitivity and turn off all discrimination and scrub the coil on top to extract maximum depth. This I couldn't do as the Mojave was so lively. So I held the coil above the surface and hoped the power on tap might penetrate the thick leaf mould.

The first positive hit that again passed all my checks was a large iron spike. I wasn't sure what it was but weeks after I had a comment on my YouTube video advising me that "It's a log splitter." I walked on and on and a few ferrous hits were dug which were mostly wire and

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Pottery and glass shards recovered from the Army field.





Army field finds.

small nails. On reaching the hoard area I scanned all over the pathway and up and down the hill. Eventually a signal was heard that quickly dropped off using my roaming discrimination test. I dug and recovered what appeared to be a ferrous button. I was disappointed but, it had been a missed signal.

Then another signal on the hill above passed my roaming test and I dug out a small black button. Again, an item missed by the X-Terra's. (I should say after locating the brunt of the coins years ago, I returned with a few other detectors but didn't locate any more either.) Deciding to make my way out I got another positive signal on the pathway and dug and dug and it proved to be a hard one to find but eventually a tiny folded-back metal item resembling a single link was found.

Close to where I had commenced my search I went off track and headed down a hill and heard a decent surprise signal. It still signalled even at full discrimination. I then expected a coin because that was about the only target it could have been.

After working with the Mojave for several weeks, I began to gain a sense about what a target might be, and was directly related to the audio targets produced both in volume and size of the response from the coil.

I plunged my Black Ada digger into the damp leaf mould and found the earth surprisingly easy to dig minus those annoying roots. I probed around the 8-inch-deep hole with my Garrett ProPointer AT and its flashlight lit up the dark and it vibrated so I dug out a bit more soil and scanned around the spoil and located a green disc.

I had predicted if it had been a coin then it would be toasted but surprisingly, it wasn't. I could clearly see a date 1943 on the pre-decimal penny.

Again, I didn't expect to find such a large coin as I had spent weeks testing the X-Terra models in these woods so it came as quite a surprise.

### Army Site

I had to ask for fresh permission to gain entrance to a building site spotted close to home. It had been opened and a digger had excavated a track equal to its width. It was a good opportunity as I knew all about the history of these acres. On a hot Sunday, I put all my gear into a backpack and cycled there. I was expecting some Army-related finds, as it had seen use as a military training area.

The earth scraped off had been arranged in many neat piles and it's here that I began the search, clambering over and scanning every pile, up and down. Lots of trash items were found and loads of pottery and glass was seen. Then I turned my attention to the trackway.

It was a slow start and I was eventually rewarded with an 1850 young head Victoria farthing. Interestingly, my *Collector's Coins England 6th Edition*, described it as the lowest mintage at just 430,080.

A thing to consider is, about 14 inches of top soil had been removed and the coin was a further 4 inches into the

soil which made for an original depth of 18 inches which as we all know is simply beyond the reach of many a machine.

Scanning over the dry brown soil the Mojave was at it's quietest during the entire tests and was well-suited to the task. A gentle signal gave up a gilded brooch surround – I had found an identical example during a garden jewelry recovery only last year.

This one was very fragile and a prized find thus far. A louder signal gave up an old picture frame wall hook. Yet another gentle signal revealed a very corroded small button from 6 inches which made the original target depth to be around 20 inches.

I had soon walked back and forth along the trackway so I resumed my investigation of the soil piles. This time I walked rather awkwardly at an angle at the bottom, trying to avoid the stinging nettles. My tactics proved successful as a number of other non-ferrous targets fell literally to my Mojave! They were heavier so when the soil was disturbed they tumbled down and it helped to use the Garrett pinpointer to locate them. An 1861 halfpenny literally rolled down and landed at my feet after a loud signal.

No Army finds turned up except an impacted musket ball which I don't think is contemporary with the British Army training from just before they shipped out to South Africa to fight in The Boer War. I have high hopes for some when more soil is displaced.

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Beach finds (below).

Foreshore ferrous finds (above).



### **Foreshore Areas**

I had mixed results on two different foreshore areas. I have always used a Tesoro to mudlark a shoreline that I've been searching for years. The Mojave worked well here in Ground Conditions Low as the soft grey mud absorbed the electromagnetic field and I found a few keepers. Anywhere beyond Sensitivity 5 invited chattering. There was iron about and I could hear the constant clucking sound as it rejected small ferrous.

However, on a different area I once used for prototyping the CTX detector, it was another story. Whatever was in (certain parts) of the exposed foreshore caused false signals in both Low and High Ground Conditions that I wasn't able to overcome despite reverting to a low sensitivity. The only explanation I can offer is, it's closer to the harbour entrance so it's first to get the maximum saline effect from incoming tides maybe.

So, I have no idea what might ensue when you take the Mojave to your foreshore area? You might be lucky, false signals might be minimal but, if salt water is present then you will no doubt have some? The accessory 4-inch concentric round coil could be a better bet perhaps?

Non-ferrous finds winkled from the foreshore.



#### Beach

Similarly, on a beach if you are anywhere near wet sand, you will get false signals on sweeps despite using the High Ground Conditions setting. Tesoro have eeked out every bit of power they could so it is very sparky.

On the dry sand, it's great! I worked a few beaches and coins abounded and two noteworthy recoveries were a very small rolled gold bracelet with sun-like disc attached. This was a very quiet buzz sound near to some gooey sea weed mush that had washed in on the last tide that I initially dismissed as a false signal. However, it was a gentle repeater and I flicked the sand with my digger and saw what I thought was gold-coloured foil. So, I was really pleased to have won this target.

The other notable recovery was the tiniest screw you ever saw and it was a definite two-way response on every sweep that took ages to find even with the aid of a pinpointer. The amazing thing about it is, usually pinpointers have increased sensitivity to tiny things but the Mojave matched the pointer in being able to signal the tiny screw in equal measure. Other notables, a small Polish 2 Grosze coin and a daily contact lens container not even close to my own much stronger Mr. Magoo prescription!

#### **To Sum Up**

So, there you have it! I hope I've managed to describe the Mojave.

It has just become clear to me now as I attempt to sum up my experiences, that contrary to most detectors, the Mojave doesn't show its strengths quickly. It did show its weaknesses early on including,



Stubble season.

chatter from being overly sensitive, an odd pinpointing quirk, it likes large iron, it can false on foreshore areas and it doesn't like wet sand. I think it's best in dry conditions. It is so finely tuned that the slightest detection of salt and trace salt minerals in ordinary soil is enough to make it chatter.

What it was slower to reveal are its quirks and behavioral traits which are slightly different to other Tesoro's (and Laser's) and not what you might expect. It has great small nail rejection (use my roaming disc and they drop out quickly) but watch that sweep speed! Slow it down to prevent small nonferrous reporting as ferrous.

Do I like the Mojave? Yes, I like the look of it. I like the feel of it. I like the way it goes about its business.

An interesting machine for sure!

#### **Manufacturer's Note**

The default ground switch setting should always be high, which is the normal setpoint for all switch and go detectors. The low setting is for very neutral ground such as dry beach sand or woodland, inappropriate use of the low setting will incur falsing due to the likelihood of uneven mineral content, especially on sites of habitation activity due to the presence of decomposing iron etc.

### **Technical Specifications**

Operating frequency: 12 kHz. Search Coil: 7-inch concentric. Weight: 2.2lbs. Power: 1 x 9 Volt. Headphones: ¼ inch. Length: fully extended 52 inches - short 38 inches. Warranty: Limited lifetime to original owner. UK Importer is: Treasure World, PO Box 88, Downham Market, PE38 8BS

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To see some video footage from the testing of this detector check out my YouTube channel: DesDunne1 TH