In the United States Court of Federal Claims

No. 10-757L

(Filed: May 18, 2018)

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GADSDEN INDUSTRIAL PARK, LLC,

Plaintiff,

v.

THE UNITED STATES,

Defendant.

* *

Takings Clause; inverse condemnation; U.S. Const. amend. V; cognizable property interest; just compensation.

Kent E. Baldauf, Jr., Pittsburgh, PA, with whom were *Bryan P. Clark, Anthony W. Brooks,* and *Edward Levicoff* for plaintiff.

Eric John Singley, United States Department of Justice, Civil Division, Commercial Litigation Branch, Washington, DC, with whom were *Kenneth M. Dintzer* and *Margaret J. Jantzen* for defendant.

OPINION

BRUGGINK, *Judge*.

This is a takings claim brought by Gadsden Industrial Park, LLC. Plaintiff asserts that the Environmental Protection Agency ("EPA") took kish[1], slag, and scrap belonging to it. Plaintiff alleges that it purchased the materials at a bankruptcy auction from a defunct steel mill and that EPA either used the materials itself or permitted its contractors to remove them despite GIP's ownership. Trial was conducted in Birmingham, Alabama, from July 25 through 28, 2017. We hold that EPA's actions constituted a compensable

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[1] Kish is a byproduct of the steel-making process. We defer a more particularized definition for now, as the meaning is disputed between the parties.

taking under the Fifth Amendment Takings Clause, although we find that plaintiff's proof of the compensation to which it is entitled fails in most respects.

BACKGROUND

The personal property in which plaintiff claims an interest is kish, slag, and scrap located on a 761-acre site in Gadsden, Alabama. The site was used for many years as a steel mill, most recently by Gulf States Steel, which went into bankruptcy in 1999, leaving all personal and real property at the site to be disposed of by the Trustee in Bankruptcy.

A north-south road transects the property. To the west side of this road, Gulf States Steel housed its steel-making operation, including a coke plant, blast furnace, and basic oxygen furnace, among other equipment. To the east side of this road ("Eastern Excluded Property"), there were two settlement lagoons, landfills, and two large areas where Gulf States Steel deposited materials generated by steel-making, along with other discarded materials. The parties referred to these areas where Gulf States Steel deposited steel-making byproducts, scrap, and trash as the north and south piles.

When Gulf States Steel operated the mill, it contracted with Heckett, a metal recovery company, to recover reusable or saleable materials from the Eastern Excluded Property. Heckett screened material dumped on the Eastern Excluded Property and returned recovered metals to Gulf States Steel to recycle into its steel-making process or to sell. Heckett's operation could not keep pace with Gulf States Steel's steel-making, however. Thus, a stockpile of materials accumulated primarily on the Eastern Excluded Property. There were two piles of stockpiled material. Each occupied more than ten acres and contained an estimated total of three to four million cubic yards of material. Each was more than eighty feet high.

Gulf States Steel filed a Chapter 11 bankruptcy petition in 1999 that was converted to Chapter 7 in 2000. It ceased operations in 2000. Heckett's metal recovery ceased at the same time. Another metal recovery project occurred on the property during the course of the bankruptcy proceeding, however. Ableco Finance LLP ("Ableco") enforced its senior security interests and liens and received the necessary authorization to attempt to collect amounts Gulf States Steel owed it. Ableco held "a first priority and perfected lien on the kish iron" and chose to contract with Regional Recycling in November 2001 "to recover and remove kish iron and other ferrous materials from the slag heaps at the Gulf States Steel facility on a 'constant and continuing basis[.]'" Letter from Jeffrey Hermann, Ableco's Counsel, to Carrie Casey, GIP (Jan. 31, 2003), Pl.'s Ex. 15 at 3.

When Gulf States Steel filed its bankruptcy petition, a group of former Gulf States Steel employees worked to secure the plant and catalogue assets. A Gulf States Steel bondholder formed the Gulf States Reorganization Group to purchase some of the assets in order to restart part of the plant. An entity named DoveBid conducted a first auction, selling the blast furnace, railroad tracks, cranes, and cold finishing mill. The remaining assets were catalogued, including those that the Gulf States Reorganization Group wanted to buy. Thereafter, the bankruptcy trustee, James Henderson, filed a motion for an order to establish bidding procedures for the sale of the remaining Gulf States Steel assets in July 2002 ("Bidding Motion"). Two instruments described the property to be sold. The Bidding Motion first generally described the assets:

> Tangible property, including real, personal and mixed property, all situated at or adjacent to the site where the debtor [Gulf States Steel] formerly conducted its manufacturing operations, consisting of approximately 600 acres of real property and the improvements thereon, easement rights appurtenant thereto, inventory and equipment. The property that is the subject [of] this sale is generally described in Exhibit A hereto.

Bidding Motion, Joint Ex. 1 at 1.

Exhibit A to the Bidding Motion was prepared by Gulf States Reorganization Group. It included a general description providing that both real and personal property would be auctioned. The real property included the Eastern Excluded Property. The personal property for sale included "[a]ll materials, whether raw minerals or by-products, situated within the boundaries of the real property being sold, including kish and scrap." *Id.* at 6. The Bidding Motion explained that Gulf States Reorganization Group had offered to purchase a list of assets detailed in an asset purchase agreement, Exhibit 1 to which included units that the group proposed to purchase:

> ATTACHMENT 5 – INVENTORY
>
> BY PRODUCTS OF MANUFACTURING INCLUDING BUT NOT LIMITED TO KISH AND MISCELLANEOUS OTHER MATERIALS AND ASSORTED SCRAP.

Id. at 32.

The bankruptcy trustee did not sell the assets to Gulf States Reorganization Group because the presence of other bidders, including Don Casey, required Mr. Henderson to open bidding to the public. Mr. Casey is the proprietor of Casey Equipment, a family-owned business based in Pittsburgh, Pennsylvania, since 1961. Casey Equipment is in the business of buying and selling steel mill equipment and had worked with Gulf States Steel prior to its bankruptcy. Mr. Casey, on behalf of Casey Equipment, participated in the first bankruptcy auction. He became aware that Gulf States Reorganization Group was interested in purchasing the remaining assets in the second auction and inquired into partnering with the group. Ultimately, Mr. Casey determined that his best option was to bid on the assets independently. To participate in the second auction, Mr. Casey formed plaintiff Gadsden Industrial Park, LLC ("GIP"). GIP was a bidder in the second auction. Carrie Casey, Mr. Casey's daughter who worked for Casey Equipment until her retirement in 2016, represented GIP in the second auction process.

Attached to the Bidding Motion for the second auction was the asset purchase agreement and the asset list drafted by Gulf States Reorganization Group and set out above. GIP did not want to purchase all of those assets. GIP thus requested a bidding procedure modification to permit competing bidders to bid on a more limited set of assets. The bankruptcy court granted the request. During the bidding process, on September 19, 2002, Mr. Casey emailed Ms. Casey, "[W]e want to buy the rights to mine the slag piles[.] [D]on't let me forget[.]" Pl.'s Ex. 5.

GIP submitted an all-cash bid of $6.3 million for most, but not all, of the remaining estate assets. The bankruptcy court found that GIP offered the highest and best bid and directed Mr. Henderson to close the sale to GIP. Mr. Henderson and GIP executed an asset purchase agreement on September 30, 2002, which was consummated on December 3, 2002. The trustee reported the sale on December 13, 2002.

GIP purchased both real property and personalty. The Trustee's Bill of Sale and the Trustee in Bankruptcy Deed describe the real property that GIP purchased as more than 400 acres of land and the buildings on them, but it was not the entire real property estate. GIP purposely omitted approximately 200 acres, including the Eastern Excluded Property, although, as indicated below, it purchased personal property present on the excluded acreage. It did this in order to avoid potential environmental responsibility.

The personal property GIP purchased is described in part in the Trustee's Bill of Sale, which included Exhibit A, the Bidding Motion, with its general description of personal property: "[a]ll materials, whether raw minerals or by-products, situated within the boundaries of the real property being sold, including kish and scrap." Joint Ex. 19 at 67. Exhibit A, the list of property units sold, included "Attachment 5 – Inventory:"

> BY PRODUCTS OF MANUFACTURING INCLUDING BUT NOT LIMITED TO KISH AND MISCELLANEOUS OTHER MATERIALS AND ASSORTED SCRAP.

Id. at 117. This material had accumulated on the land that GIP did not buy.

Exhibit B to the Trustee in Bankruptcy Deed not only carved out the eastern portion of the site, but it also excluded certain personal property ("Exclusion List"):

> 1. With reference to the property identified in "ATTACHMENT 5 – INVENTORY," Purchaser excludes:
>
> A. All miscellaneous other materials.
>
> B. All by-products of production other than kish and 420,000 cubic yards of slag which are located on the Excluded Real Property as is described on Exhibit B to the deed from Seller to Purchaser of even date herewith, together with a reasonable period of time to remove such items.

Id. at 120.

Ms. Casey wrote the Exclusion List. She testified that the Exclusion List was the only part of the bankruptcy sale contract that GIP had participated in writing and that she "cut and pasted" terms in the Exclusion List. Trial Transcript ("Tr.") at 105. Ms. Casey did not discuss the reasonable period of time language with the bankruptcy trustee. She added the reasonable period of time language because she was in the habit of including such a term in contracts she was involved in negotiating for Casey Equipment. She did not know how long GIP would require to retrieve the materials it bought and thus added language that she believed would secure GIP's right to access the Eastern Excluded Property to retrieve the materials.

Following the bankruptcy sale, GIP began work at the site and became aware of Regional Recycling's metal recovery operation on behalf of Ableco. GIP believed that Ableco had recovered and sold materials GIP purchased. Thus, on January 2, 2003, GIP wrote a letter to Ableco informing it that GIP purchased "the kish and scrap metal located at the former Gulf States Steel site." Letter from Carrie Casey, GIP, to Jeffrey Hermann, Ableco's Counsel (Jan. 2, 2003), Pl.'s Ex. 14 at 1. GIP demanded "restitution in an amount equal to the value of the assets sold[.]" *Id*. Ableco responded, contesting any liability to GIP for the materials recovered and sold, explaining that Regional Recycling ran its recovery operation until December 2002 "at which time Ableco terminated the Kish Iron Contract based upon Ableco's understanding that the Trustee . . . had agreed to transfer to GIP the right to remove kish iron after the date of the Closing . . . ." Letter from Jeffrey Hermann, Ableco's Counsel, to Carrie Casey, GIP (Jan. 31, 2003), Pl.'s Ex. 15 at 3.

Immediately after the bankruptcy sale, GIP found tenants for some of the buildings and dismantled others and found purchasers for some of the steel mill equipment it had purchased. GIP used slag from the Eastern Excluded Property to fill the below-ground-level voids left after the removal of equipment. It also sold additional slag. In total, Mr. Casey estimated that GIP used or sold approximately 15,000 cubic yards of slag, which he estimated was ten percent of the slag on the Eastern Excluded Property.

In 2004 and 2005, GIP brought Watkins Metals Co., Inc. ("Watkins"), on site to recover metal from a pile of slag located in the northwest corner of the real property that GIP had purchased, not from the piles on the Eastern Excluded Property. Watkins is located in Birmingham, Alabama, and is in the business of metal recovery, scrap processing, and recycling. To recover metal from GIP's real property, Watkins used separating equipment, weighed the recoverable metal, and loaded it into railcars for GIP. During the one-year project, Watkins recovered metal pieces ranging from six inches to four feet in size. Watkins received $35 per ton of metals retrieved and loaded for its work recovering the metal, but GIP retained ownership of the metals. GIP later contracted with Watkins to complete another recovery project near the middle of GIP's property from which Watkins recovered items such as steel beams and metal mixed in with slag.

After a request from the Alabama Department of Environmental Management and pursuant to an Action Memorandum relating to potential Superfund sites, EPA began its first removal action on the site in 2003. EPA investigated a claim that contaminants were leaching out of the piles and from nearby lagoons. Barbara Scott, EPA's on-scene coordinator from 2003 to 2006, determined that the piles as well as the lagoons were causing environmental problems. Specifically, EPA was concerned that environmental contaminants associated with the piles and lagoons, such as oil and leachate, were migrating from the Eastern Excluded Property. Although EPA did endeavor to remove as much oil as possible, Ms. Scott determined that simply removing the oil from the lagoons would not be a long-term solution, because the equipment to maintain the lagoons had deteriorated, and solids within the lagoons also posed a problem. The EPA's on-scene coordinator for 2007 and 2008, Randy Nattis, and the remedial project manager, Jordan Garrard, elected to fill one of the lagoons with on-site slag as a way to reduce contaminated overflow.

In 2006, MultiServ, a mill service company that is a division of the Harsco Corporation ("Harsco"), contacted the EPA Remedial Project Manager, Amy McLaughlin, regarding recovering materials from the piles on the Eastern Excluded Property. She had reviewed GIP's bankruptcy sale contract and informed MultiServ: "It looks like the Gadsden Industrial Park has the mining rights for the slag at the Gulf States Steel Property. If you are interested in reclaiming the slag, I suggest contacting Don Casey." Email from Amy McLaughlin, Remedial Project Manager, EPA, to Ken Orndoff, Business Development Manager, MultiServ (Feb. 13, 2006), Pl.'s Ex. 25. MultiServ subsequently made a proposal to GIP to process the piles, but the two parties did not move beyond initial discussions.

In 2007, EPA inquired into ownership of the piles and materials stockpiled on the Eastern Excluded Property in connection with its efforts to address environmental concerns. This began a series of communications between EPA and GIP that fueled confusion regarding what GIP had purchased from the bankruptcy estate. EPA sent GIP a request for information through Mike Stevenson, counsel for EPA, under section 104 of the Comprehensive Environmental Response, Compensation, and Liability Act[2] ("CERCLA"). Pl.'s Ex. 37. The request noted that, "GIP purchased what is now operated as the Gadsden Industrial Park as well as two large slag piles located on the remaining Gulf States Steel property and that are adjacent to the waste lagoons and Black Creek." *Id*. at 1. EPA asked if Gadsden had "conducted or arranged for any environmental cleanup or management of hazardous materials" and whether GIP had taken action to stop or prevent "any continuing releases of hazardous substances." *Id.* at 6.

Thereafter, a series of emails and meetings follow, some of which we set out herein. Initially, Mr. Casey responded by email to Mike Stephenson, EPA counsel, on January 29, 2008, explaining, "In your cover letter it is mentioned that GIP bought two large slag piles adjacent to the lagoon. My understanding is Gadsden does not own the two remaining slag piles but does have the right to mine them." Pl.'s Ex. 39. He provided details regarding various aspects of GIP's operation on the site and closed by writing,

> It is to GIP's best interest that the GIP property and the surrounding estate owned properties be remediated. GIP will continue to remediate its property and has already volunteered to work with the EPA to discuss ways to more efficiently clean up the coke plant area. Outside of the coke plant area, GIP will

[2] 42 U.S.C. §§ 9601–9675 (2012).

> continue to help the clean up of the estate property by continuing to reduce the size of the two slag plies. In addition GIP is now studying ways to reduce the very large and very ugly Kish piles[.]

Id. at 3.

On February 4, 2008, Mr. Casey emailed Mr. Stephenson again to discuss alleged environmental concerns on the Eastern Excluded Property. He wrote:

> The two big piles are kish or furnace dust which is ferrous oxide and is not basic[.] Slag piles are basic with high PH[.] I am not sure what slag piles remain or where they are located[.] We bought the right to mine 400[,]000 cu ft which we may have already used. We used a lot for filling the PM pits and other pits around the park. We let the city of Gadsden take truck loads. We sold some and gave away truck loads to churches for use on their parking lots.

Pl.'s Ex 41.

Mr. Casey's communications with GIP's attorneys at this time recited that GIP was "presently negotiating a contract for the sale of the kish which is the name [GIP] uses for the 'red dirt' in the landfill and which is ferrous oxide or rust." Pl.'s Ex. 45. Mr. Casey noted that "the purchase agreement is clear that GIP did not buy anything else in the landfill[,] none of the other GSS by products." *Id.*

Thereafter Mr. Stevenson requested that Mr. Casey meet with EPA to discuss leachate that was accumulating in a collection ditch bordering the north and south piles. During a March 4, 2008 meeting, Mr. Casey informed EPA that GIP had purchased kish and 420,000 cubic yards of slag and had a reasonable amount of time to remove it. GIP communicated during the meeting that it was planning to begin recovering metal from the Eastern Excluded Property in the near future. Mr. Nattis and Mr. Garrard understood through this meeting that kish was ferrous oxide, which Mr. Casey referred to as red dirt. In his contemporaneous summary of the meeting, Mr. Casey wrote that GIP might be able to work with EPA if a reasonable amount of time is defined as when "the EPA is ready to go to work on the piles." Pl.'s Ex. 46. This would give GIP time to remove some Kish and if possibly [sic] some more slag helping to reduce the sizes of the piles, a win win for both parties[.]" *Id.*

Mr. Casey followed up with EPA via email on March 19, 2008, reminding EPA of GIP's plans to start removing kish in the near future. Pl.'s Ex. 51 at 2. In that email, he wrote, "I believe I already answered you concerning the Kish or red dirt as we call it[.] GIP has not removed any Kish or red dirt to date. . . . GIP plans to start removal of Kish in the very near future." *Id.* Mr. Casey then provided an explanation regarding GIP's use of slag by separating slag into "Arc Furnace Slag" and "Blast Furnace Slag," writing that the former has little market value and GIP used it to fill pits or gave it away to the city or churches, whereas the latter has market value and GIP had been selling it. *Id.* Mr. Casey explained that "no records are kept" of how much slag was taken. *Id.* These communications are silent regarding scrap.

Further dissection of the communications between GIP and EPA concerning plaintiff's ownership rights is unnecessary. They can be summarized as a desultory and imprecise conversation, the substance of which was that GIP claimed the right to extract kish and slag, and that EPA persisted in demanding to know of plaintiff's intentions and plans. Given Mr. Casey's imprecise characterizations of what GIP bought, we are not surprised that he did not itemize scrap. The communications are best seen in the context of EPA's concern about environmental issues, and GIP's lack of precision about title matters is hardly surprising. The issue of what GIP owned is one of law, which we explore below.

At the same time that Mr. Casey was communicating with EPA regarding what GIP owned and GIP's own remediation efforts, GIP was making plans to recover materials from the Eastern Excluded Property and sell them. GIP negotiated with Metawise Group to purchase C fines, which are small pieces of ferrous material less than one inch in size, for $4.50 per ton after loading costs. In 2007, GIP reached out to Watkins to discuss whether it would be interested in recovering the materials GIP believed to be in the piles on the Eastern Excluded Property. It proposed the same $35 per ton agreement as GIP and Watkins had on the previous recovery project. *See* Pl.'s Ex. 55. The projects that Watkins had completed on the northwest corner of GIP's property had been smaller in scale, but Danny Stevens, Watkins' owner, was familiar with the piles on the Eastern Excluded Property. He agreed with GIP that recyclable material could be extracted.

Mr. Stevens rejected the $35 per ton proposal, however. Instead, Mr. Stevens proposed to recover metal at Watkins' own expense and pay GIP a commission after the sale of recovered materials. Mr. Stevens explained that reclaiming materials from the piles on the Eastern Excluded Property would be "a lot more labor intensive and is not as easy to get the iron out as that northwest corner was." Tr. 373. Mr. Stevens wrote in his letter to GIP that Watkins would list the products it hoped to recover and develop a pricing formula to avoid confusion regarding the amount of commission for each material. Pl.'s Ex. 55.

GIP did not accept Watkins' proposal, so Watkins proposed an alternative in which GIP would pay Watkins a fee per ton of recovered metal with GIP retaining ownership of the metal along with responsibility for its sale. This proposal was memorialized in a draft "Agreement to Process Kish." Pl.'s Ex. 71. The agreement recited, "This agreement details the processing of Kish, more commonly known as Red Dirt which consists of various size metals. The Kish is located on the landfill East of the Park on property owned by the defunct Gulf States Steel." *Id.* Watkins agreed to provide the equipment and labor to "separate and screen the Kish in order for [GIP] to recover and sell the metals in the Kish." *Id.* The draft identified six categories of recoverable materials: four metal sizes ranging from "less than one inch (fines)" to metals greater than three feet along with two categories of scrap. *Id.*

The proposal involved GIP paying Watkins seventy dollars per gross ton to screen, separate, and load metals that were more than one inch in size.[3] Watkins also proposed to screen, separate, move, and pile the smaller fines at no cost to GIP. Watkins would obtain an option to purchase separated piles of fines for ten dollars per ton. Watkins also would obtain the exclusive right to recover materials from the piles "so long as Watkins reclaims 500 gross tons of material each month." *Id.* The proposal would permit Watkins to withdraw after a two-week written notice if the quantity of material available for processing did not allow for profitable operations.

Mr. Stevens anticipated being able to begin within a month after an agreement was reached. At trial he described how Watkins would have performed the work. The basic process for metal recovery was to excavate the material, pull out the larger pieces of visible metal, and run the smaller materials over a magnetized conveyor belt that would separate and screen out

[3] Plaintiff's damages expert, Mark Gleason, incorporated into his analysis an oral revision to the agreement that Mr. Casey and Mr. Stevens communicated to him in his preparation: GIP would not have paid Watkins for materials that GIP ultimately sold for less than $70 per ton. This term does not appear in the draft agreement, and it also was not referenced in Mr. Casey's or Mr. Steven's testimony. We find that the oral provision was not proven.

the metal. The leftover nonmetallic material would be re-piled on the Eastern Excluded Property. Watkins had bulldozers, magnetic cranes, screens, magnetic conveyors, and trucks. It had five or six local employees. If it was necessary to increase the rate of processing the piles, Watkins could bring in a second set of equipment or purchase additional equipment. Mr. Stevens expected the job to take ten years or more.

As GIP and Watkins negotiated their metal recovery agreement, EPA had tasked an on-site contractor, CMC Inc., with addressing environmental issues, including how to stop calcium in the slag from precipitating out as leachate. EPA's initial plan was to remove slag from the site. EPA also considered other alternatives to a massive removal of slag. It considered capping the piles as they stood and simultaneously improving the surrounding drainage ditches. Mr. Casey testified that GIP had offered to improve these same ditches at no cost to the government. Another alternative, and the one EPA ultimately adopted, was to reduce the size of the piles by removing saleable metal, and then capping what was left of the piles. In order to pursue the latter alternative, EPA sought bids to perform an investigation into the feasibility of recovering saleable materials from the piles to offset the cost of CMC's remediation work. There was no testimony that EPA employees believed the materials GIP purchased constituted an environmental hazard. By this time, EPA officials understood that the metal in the piles had value.

In April 2008, representatives from MultiServ toured the site. Afterwards Mr. Nattis informed members of the EPA team via email in May 2008 that he had "a firm very interested in taking ALL the Slag / Kish from the site for reuse, but [that] is [contingent] on taking all of it, including the before mentioned Kish." Pl.'s Ex. 65 at 1. Mr. Nattis noted in this email, however, that "GIP claims they own the right to 'some' of the material (Kish) within the pile." *Id.*

As a result of EPA's exploration of a metal recovery operation of its own, Watkins ultimately declined to enter an agreement with GIP. Mr. Stevens met with EPA's on-site coordinator, Mr. Nattis, and through that meeting understood that EPA was planning to recover the metals in the piles by hiring its own recycling contractor. Mr. Stevens recalled the meeting occurring in May or June of 2008. Mr. Nattis' records indicate that he interacted with Mr. Stevens on June 4, 2008. As a result of these communications with EPA, Mr. Stevens believed that, as of June 4, GIP would not be permitted to perform its own recovery operation. GIP and Watkins thus did not consummate the draft agreement, and Watkins never began recovery of metals from the piles. Watkins was also among the contractors who submitted a bid to EPA to conduct EPA's recovery operation.

By late June 2008, GIP knew from Mr. Stevens that EPA planned to hire a recycling contractor and that Watkins did not believe GIP had the authority to conduct its own recovery operation. Mr. Casey emailed counsel for EPA on June 29, 2008, stating that GIP had become aware that EPA intended to recover the metal but that GIP would be contracting with Watkins to extract the same materials. Mr. Casey again asserted GIP's right to kish and requested a meeting with EPA to resolve "any differences between the EPA and GIP concerning the Kish." Pl.'s Ex. 82 at 5. Mr. Greg Luetscher, counsel for EPA, responded via email on June 30, 2008, proposing a conference call at which the parties would discuss "the nature, extent, and derivation of GIP's rights to the kish" and "administrative mechanisms under which persons other than EPA might typically perform removal work at a Superfund site." *Id.* at 4. After Mr. Luetscher's email, Mr. Casey met with Mr. Nattis in October 2008, and learned from him that EPA did not want GIP to leave hazardous materials behind after extracting valuable materials. The only hazardous materials, of course, were associated with the same slag that EPA proposed to leave on site.

EPA ultimately chose MultiServ to complete the project. On October 21, 2008, EPA's contractor CMC entered a "Site Investigation Agreement" with MultiServ, which provided for a pilot study of the Eastern Excluded Property to determine whether a metal recovery operation was economically feasible. The pilot study took place in 2009. During the site investigation, EPA sent a second Request for Information to GIP in April 2009, inquiring into what GIP's interest was in the landfills. GIP's response claimed that it had rights to kish and slag, referencing the bankruptcy sale contract.

Based on its pilot recovery test, MultiServ determined that it was economically feasible to conduct a full scale metal recovery operation. It thereafter entered into a "Slag Processing Agreement" with CMC in October 2009, which gave MultiServ the right to mine the north and south piles to recover metal and other valuable material. MultiServ also had the authority to market and sell what it recovered. The remaining materials, mainly slag, would then be capped by CMC. At the time, MultiServ issued a press release stating that it believed a $50 million recovery was possible.

Under the agreement, MultiServ would pay CMC fifteen percent of the gross proceeds MultiServ received from the sale of the recovered materials for the first twelve calendar months of the agreement and twenty percent of the gross proceeds in each calendar month thereafter. That payment was expected to relieve EPA from paying for CMC's remediation activities. CMC determined the percentage based on the total estimated revenue from MultiServ's metal recovery and its estimated cost to complete the capping process. MultiServ would retain the balance of the proceeds from the sale of any materials.

MultiServ's metal recovery process was basically the same as that which Watkins anticipated using, although MultiServ apparently began with more equipment and employees. Larger pieces of metal, such as ingots, slabs, and I-beams were removed before the other material was processed to capture smaller pieces of metal. MultiServ sold the ferrous materials on a freight-on-board basis at Gadsden. To complete the project, MultiServ built a maintenance facility and a large processing plant near the north pile. MultiServ had approximately twenty employees working on site when processing the north pile. When work expanded to the south pile in late 2011, MultiServ added four hourly equipment operators. It ran two shifts, totaling sixteen hours of production per day, five days per week. MultiServ processed 450 tons of material per hour at the north pile. Michael Brady, Harsco's site manager, testified that such a processing plant would cost approximately $150,000 per month to rent. MultiServ used a second, lower capacity processing plant at the south pile.

MultiServ had help from CMC, which extracted mixed material and placed it in a location from which it could be loaded for processing. CMC also moved nonmetallic materials out of the processing zone for storage on site. Mr. Brady estimated that CMC performed approximately forty percent of the work.

MultiServ sold recovered materials beginning in October 2009. Throughout the course of the project, it processed and sold 245,890 tons of material, grossing more than $13.5 million of metal-bearing materials. Out of the $13.5 million in gross sales, MultiServ paid CMC approximately $2.4 million. According to MultiServ's sales report, it recovered the following categories of materials: 1" x 0" slag; 3" x 1" slag; A scrap; B scrap; three types of C fines; C scrap; ingots; manganese scrap; miscellaneous; oversized scrap; oversized skulls; plate; skulls; slabs; slag "overbur:" small pit scrap; small skulls; steel fines; steel pit scrap; and wire rope.

During the course of MultiServ's work, GIP did not attempt its own recovery operation. Instead, GIP purchased slag from MultiServ for five to six dollars per ton, or approximately twelve dollars per cubic yard. The total volume of slag GIP purchased from MultiServ is not set out in the record.

MultiServ and CMC continued the recovery project through January 2013, when recovery from saleable materials became insufficient to fund CMC's remediation work. MultiServ project managers estimated that it had processed approximately seventy percent of the north pile and twenty percent of the south pile by the time it ceased working. Peter Mazzarella, who is the North American sales manager for Harsco Metals & Minerals and who joined Harsco in 2008, estimated that fifty percent of the piles remained. Neither CMC nor any other EPA contractor ever capped the piles.

DISCUSSION

After reviewing the bankruptcy sale contract, we find that GIP purchased kish, assorted scrap, and 420,000 cubic yards of slag at the bankruptcy auction. GIP successfully proved that each material was present on the Eastern Excluded Property and that it was used or sold by EPA. We hold that EPA's actions constituted a compensable taking under the Fifth Amendment Takings Clause. We find, however, that plaintiff's proof of the compensation to which it is entitled fails regarding kish and assorted scrap. We thus award plaintiff compensation for EPA's taking of 92,500 cubic yards of slag.

I. Was There A Taking?

GIP claims that the government took from it kish, 92,500 cubic yards of slag, and assorted scrap, all of which it claims to have purchased from the Trustee in Bankruptcy. The complaint and GIP's pre-trial materials assert that the only materials as to which a taking is claimed were those actually used by EPA and sold by MultiServ. In other words, GIP is not claiming a taking of all materials in the piles as of a particular date, only those removed by the government.

Preliminarily, the government argues that plaintiff did not include assorted scrap in its taking claim until the post-trial briefing stage and thus any claim for just compensation for scrap is not properly before the court. We disagree. GIP pled that EPA took plaintiff's property purchased at the bankruptcy sale, a claim which fairly encompasses kish, slag, and assorted scrap. The original complaint alleges the government took its property on the Eastern Excluded Property, and specifically mentions kish. Plaintiff's amended complaint states that it purchased "kish and other materials." Pl.'s Am. Compl. ¶ 12. Even if a claim for assorted scrap had not been pled specifically before trial, the issue was tried by consent. Rule of United States Court of Federal Claims 15(b)(2). Both parties' witnesses testified to the differences between kish and scrap, whether GIP owned scrap, and whether EPA took kish, scrap, or both. *See, e.g.*, Tr. 86–88 (C. Casey), 103 (C. Casey), 263–70 (D. Casey), 494–97 (Clayman), 618–20 (Garrard), 757–58 (Nattis). The government did not object to that testimony at trial.

With respect to slag, as of trial, plaintiff only sought compensation for 92,500 cubic yards of slag that EPA used to fill the lagoon on the Eastern Excluded Property, and the report of its compensation expert was limited in that respect. In its post-trial brief, plaintiff adds a separate calculation for slag it expects to require in the future (113,000 cubic yards), which counsel estimates to be worth between $1.3 and $6.7 million. Since plaintiff's additional damages calculation for slag was introduced post-trial and was not tried by consent, we decline to consider it. As we explain below, moreover, the post-trial claim for additional slag raises a more general problem about how GIP approached its claim.

There is no question that the materials at issue—kish, slag, and assorted scrap—may constitute personal property for purposes of a takings claim. *Horne v. Department of Agriculture*, 135 S. Ct. 2419, 2425–28 (U.S. 2015). To decide whether the government owes GIP compensation, we must determine whether GIP had a cognizable property interest in the materials the government removed.

The government contends that GIP purchased a non-exclusive right for a limited period of time to retrieve only kish, which it characterizes as a worthless, non-ferrous material, along with 420,000 cubic yards of slag. It asserts that the valuable ferrous materials EPA's contractor removed do not constitute kish, that GIP excluded scrap from the materials it purchased, and that any right GIP had to retrieve the limited materials it did buy had expired by the time MultiServ performed its work. Plaintiff responds that kish is a blast furnace byproduct that does have valuable ferrous content and that it did not exclude scrap from its purchase. Finally, it contends that its right to retrieve the materials had not expired when MultiServ was on site. To determine what GIP purchased, we return to the bankruptcy sale contract.

The relevant language is found in the Trustee's Bill of Sale Exhibit A clause "Attachment 5 – Inventory:" "By products of manufacturing including but not limited to kish and miscellaneous other materials and assorted scrap." Joint Ex. 19 at 117. This provision is then modified by the Exclusion List written by Ms. Casey:

> 1. With reference to the property identified in "ATTACHMENT 5 – INVENTORY," Purchaser excludes:
>
> A. All miscellaneous other materials.
>
> B. All by-products of production other than kish and 420,000

> cubic yards of slag which are located on the Excluded Real Property as is described on Exhibit B to the deed from Seller to Purchaser of even date herewith, together with a reasonable period of time to remove such items.

Id. at 120.

The asset purchase agreement attached to the Trustee's Bill of Sale states that it "shall be governed by and construed in accordance with the laws of the State of Alabama[.]" *Id.* at 75. Alabama applies the general rule of contract construction that "the intention of the parties controls in construing a written contract, and the intention of the parties is to be derived from the contract itself, where the language is plain and unambiguous." *Loerch v. Nat'l Bank of Commerce of Birmingham*, 624 So. 2d 552, 553 (Ala. 1993); *see also Homes of Legend, Inc. v. McCollough*, 776 So. 2d 741, 746 (Ala. 2000) ("[T]he intent of the contracting parties is discerned from the whole of the contract."). Moreover, "if there exists inconsistency between two clauses of a contract which cannot be reconciled, the inconsistency must be resolved in favor of the prior clause, unless an intention to thereafter qualify is plainly expressed." *City of Fairhope v. Town of Daphne*, 208 So. 2d 917, 924 (Ala. 1968).

The government reads Attachment 5 to include a single category of property: byproducts of manufacturing, which include but are not limited to kish, miscellaneous other materials, and assorted scrap. This interpretation reads all the words following "including but not limited to" as types of byproducts. Because GIP excluded "all by-products" except for kish and a portion of slag, defendant concludes that GIP excluded assorted scrap.

GIP reads Attachment 5 to include three categories of property: byproducts of manufacturing, miscellaneous other materials, and assorted scrap. GIP argues that the Exclusion List excluded miscellaneous other materials and narrowed byproducts of manufacturing to only kish and 420,000 cubic yards of slag, but did not affect GIP's purchase of assorted scrap.

The parties agree that the language of Attachment 5 and the Exclusion List unambiguously provides that GIP excluded from its purchase any "miscellaneous other materials." The instruments also provide that GIP purchased only two byproducts of manufacturing: "kish" and "420,000 cubic yards of slag." The remaining term in Attachment 5 is "assorted scrap." The Exclusion List is silent regarding assorted scrap. Given that "assorted scrap" was first listed in Attachment 5 as purchased property, and GIP did not qualify its purchase by placing assorted scrap on the Exclusion List, it follows that GIP purchased "assorted scrap" at the bankruptcy sale. We note as well that the testimony at trial was that scrap is typically a finished product, something like an I-beam, for example, and not a byproduct intended for discard.

The structure of GIP's Exclusion List also contradicts the government's construction that kish, miscellaneous materials, and assorted scrap are all byproducts of manufacturing. Although miscellaneous other materials is listed after "including but not limited to" in Attachment 5, along with kish and assorted scrap, the Exclusion List does not treat miscellaneous other materials as a byproduct. Instead, miscellaneous other materials is a category called out in its own provision. If all terms following "including but not limited to" were byproducts, then miscellaneous other materials would have been excluded by the second sentence of the Exclusion List. Because miscellaneous other materials was not treated as a byproduct on the Exclusion List, it is not reasonable to lump the term "assorted scrap" from Attachment 5 into byproducts. Thus, at the bankruptcy sale, GIP purchased kish, 420,000 cubic yards of slag, and assorted scrap.

Even though we find that GIP purchased kish, scrap, and slag, important questions remain: what are these materials, do they have any value, and did the government take them from plaintiff?

The bankruptcy sale contract did not define these terms. Moreover, the bankruptcy trustee did not communicate with GIP before, during, or after executing the sale instruments regarding the definition of kish, or the other materials GIP purchased, slag and assorted scrap. Where the meaning of an undefined word or phrase must be ascertained, "the court should simply give the undefined word or phrase the same meaning that a person of ordinary intelligence would give it." *Twin City Fire Ins. Co. v. Alfa Mut. Ins. Co.*, 817 So. 2d 687, 692 (Ala. 2001). Additionally, "[p]arties to a contract will not be imputed with using language that is meaningless or without effect." *Black Diamond Dev., Inc. v. Thompson*, 979 So. 2d 47, 51 (Ala. 2007). Each material can be defined by drawing on the language of the agreement, communications between EPA and GIP after the bankruptcy sale, and testimony from those involved with recovery projects on the Eastern Excluded Property.

The most straightforward term to define is "slag." The language of the bankruptcy sale contract lists slag as a byproduct of manufacturing. Trial testimony from those familiar with steel production defined slag as a non-ferrous material that separates during smelting. *E.g.*, 89–90 (C. Casey), 176–80 (D. Casey), 479–95 (Clayman), 875–76 (Kingham). After being siphoned away, the slag hardens. It consists primarily of calcium oxide and silicon dioxide, the material that EPA associated with pollution problems on site.

According to the Caseys, assorted scrap is metal of various sizes that may or may not be ferrous, but that can be either recycled into steel manufacturing or sold for other purposes. It is typically finished steel product, like an I-beam, a railroad car, or wire, which has been discarded in a finished form and is thus not a byproduct.

The parties hotly contest the meaning of "kish." The bankruptcy contract describes kish as a byproduct of manufacturing. After GIP's purchase, Mr. Casey characterized kish to EPA representatives as red dirt with fifty percent or more iron content. Similarly, EPA's on-scene coordinator Mr. Nattis testified that through meetings with Mr. Casey he understood kish to be ferrous material with resale value. Mr. Nattis testified that the piles held both what he perceived as kish and scrap metal.

Both Ms. Casey and her father testified to their understanding of kish. Ms. Casey explained that kish is metal siphoned off with slag during steel manufacturing. Mr. Casey differentiated between ESP kish, which is a fine metallic that resembles rust or red dirt, and larger chunks of ferrous material that accumulates in the smelting process and is siphoned off with the slag. He stated that it was his intent at the time of the purchase to purchase all the recyclable metals left in the north and south piles, whether they were what he termed kish or scrap metal.

The Casey's use of the term kish is consistent with both the draft Watkins agreement and the Ableco recovery contract. Prior to the GIP purchase, the Ableco recovery contract with Regional Recycling, denominated a "Kish Iron Contract," provided that Regional Recycling would "recover and remove kish iron and other ferrous materials from the slag heaps." Pl.'s Ex. 15 at 3. The draft "Agreement to Process Kish" between GIP and Watkins defined kish as "more commonly known as Red Dirt which consists of various size metals." Pl.'s Ex. 71. Both of these agreements reflect the understanding that kish is or contains recoverable metal of various sizes.

Mr. Stevens of Watkins testified as someone familiar with the recovery process. He viewed kish as a metal that could be recovered from the slag piles and recycled. He explained that he had heard the term "kish iron" used by Mr. Casey and others in the metal recovery industry and that he took it to be "steel and iron" that could be recovered, regardless of its size. Tr. 377. Mr. Stevens testified that he did not personally use the term "kish," but that his goal was to extract and process metals from the pile, whatever the metal was called.

Similarly, Harsco's sales manager Mr. Mazzarella testified that he understood kish to be the same thing as kish iron, a byproduct of the blast furnace process. Kish, he testified, is a grade of iron, but he had never sold it and did not know if it was in the piles. He explained that MultiServ made no distinction between kish and other recoverable materials. Instead, MultiServ's goal was to extract all metals within the piles. Stevens and Mazzarella thus indicated that, from the perspective of recycling contractors, "kish" referred to a metal byproduct of manufacturing; it was just another metal to be recovered. We note that, consistent with testimony from those familiar with the metal recycling industry, MultiServ referred to iron byproduct on its sales report not as kish but as A scrap, B scrap, C scrap, and fines, depending on the size of the metal recovered.

Both parties also offered expert testimony on the definition of kish. Plaintiff's expert on the meaning of kish within the metal recycling industry was Charles Brown, who had experience in metal recovery and had worked with both Gulf States Steel and Regional Recycling. He testified that kish was a term used in the metal recycling industry. He testified that kish is "iron containing slag." Tr. 1195. He explained that the terms kish, kish iron, and foundry kish were interchangeable as long as the recovered material contained a minimum percentage of iron. Mr. Brown testified that when recovering kish, the recovery might include material that was almost 100% iron, which would be classified as A, B, or C scrap according to its size and iron content (A scrap being the largest and highest in iron content). He explained that the recycling would remove ferrous materials of all sizes, but that kish was essentially a catch-all term for iron mixed with slag.

Moreover, plaintiff's expert on the metal recycling market, Gary Clayman, who is employed by a scrap metal processing company, testified that kish is a metallic byproduct of the blast furnace operation that is generated when skimming byproducts out of the iron ore. He defined it as "iron off of the blast furnace. It comes from an integrated mill that has a blast furnace. There is no other word for this but kish. US Steel calls it kish." Tr. 474. He explained that kish is a chunky material that may be recovered in different sizes and may be sold under names such as A scrap, 3-foot iron, or blast furnace iron.

The only witness on the meaning of kish who testified that it was not a ferrous byproduct of a blast furnace operation was the government's expert, Dr. R. Fruehan. Dr. Fruehan holds a Ph.D. in metallurgical engineering. He served as a scientist for US Steel and has been a professor at Carnegie Mellon and director of its Center for Iron and Steelmaking Research. Dr. Fruehan defined kish as graphite flakes without iron content or resale value.

We do not doubt Dr. Fruehan's expertise in the craft of steel manufacturing, but his understanding of the meaning of kish was plainly not how the Caseys, persons associated with the bankruptcy, other steel companies or metal recovery companies, and EPA employees used the term. Contracting parties are entitled to reach their own understanding of the meaning of technical terms in an industry. That is plainly what happened here. Although the trustee did not testify as to his understanding of kish, he and those assisting him in obtaining value from the bankrupt estate clearly were offering for sale materials that they understood bidders such as GIP were interested in recycling. There is certainly no evidence offered by the government, which appears as a third party to the agreement, that there was no meeting of the minds. In buying kish from the trustee, GIP purchased material that both parties understood to be a ferrous byproduct of a blast furnace operation in various sizes that has economic value.

The government's final argument regarding GIP's property interest is that, according to the reasonable period of time language in the Exclusion List, GIP only purchased a license to explore the Eastern Excluded Property, which was too indefinite to enforce or had expired by the time EPA used or sold materials on the site. We disagree. The Trustee's Bill of Sale states,

> [The] Trustee does hereby grant, bargain, sell and convey, as is, unto Gadsden Industrial Park, LLC, all right, title and interest which the bankrupt Debtor had on the date of the commencement of the proceedings in bankruptcy on the following property referenced in [the Bidding Motion] and more particularly described [in the asset purchase agreement] less and except those items set forth on an exclusion list, prepared by the purchaser . . . to have and to hold all the right, title and interest in and to said property unto the said Gadsden Industrial Park, LLC, and to its assigns forever.

Joint Ex. 19 at 59 (emphasis omitted). This is not a license. It is an outright sale of personalty, and it is not shared with anyone else.

Admittedly, GIP introduced confusion in the contract when it wrote a provision in the Exclusion List that states,

> All by-products of production other than kish and 420,000 cubic yards of slag which are located on the Excluded Real Property as is described on Exhibit B to the deed from Seller to Purchaser

> of even date herewith, *together with a reasonable period of time to remove such items*.

Joint Ex. 19 at 120 (emphasis added). This is clearly a limitation on what was *not* excluded. As a limitation on the excluded materials it would be useless language. So we can safely presume it is a limitation on plaintiff's right to take possession of what it purchased, which is understandable, as the personalty was located on land GIP did not own. Although the provision is a limitation on GIP's time to remove the materials, we find that GIP's time to remove its materials had not expired by the time EPA used or sold those materials and that the government is not the proper party to determine when GIP's access to the Eastern Excluded Property ended.

First, the government contends that the reasonable period of time language is too indefinite to be enforceable. Defendant cites to cases in which the Supreme Court of Alabama struck down lease extension provisions in coal-mining leases that it determined were too indefinite to be enforceable. *Drummond Co., Inc. v. Walter Industries, Inc.*, 962 So. 2d 753, 758 (Ala. 2006) (lessee under four coal-mining leases brought claims against lessor based on a will-extend clause that the court found too indefinite to enforce); *Linton Coal Co. v. South Central Resources, Inc.*, 590 So. 2d 911, 912 (Ala. 1991) (coal-mining lessee's assignees brought action for specific performance of a lease after royalty arrearage was paid and the court held that the lease term was too indefinite to be ascertained). In those cases both parties to the lease were the parties before the court, disputing the term of the lease. Here, the owner of the underlying real property is not a party and there is no evidence that it has challenged GIP's access to the Eastern Excluded Property. It is therefore unnecessary for this court to inquire into definiteness of the reasonable period of time provision's end date.

Alternatively, the government maintains that GIP's time to enter the Eastern Excluded Property expired either when the bankruptcy estate closed or within six years of GIP's purchase. It argues that, because the agreement that GIP could enter the Eastern Excluded Property to remove its materials was made between the bankruptcy trustee and GIP, when the bankruptcy estate closed, GIP's reasonable period of time ended as well. This is incorrect. The bankruptcy trustee acts as the representative of the estate in the bankruptcy process, which includes sales of property to reduce the estate to money. 11 U.S.C. §§ 541(a), 701-704 (2012). When the bankruptcy estate is closed, any property scheduled but not administered is abandoned to the debtor. *Id.* §§ 554(c), 726(a)(6). Thus, GIP continued to own the materials it had purchased after the close of the bankruptcy proceeding. The proper party to dispute when

GIP's reasonable time ends is the underlying real property owner, who, as noted above, did not limit GIP's access prior to the EPA using or selling materials from the Eastern Excluded Property. Relatedly, the government argues that the six years that GIP owned the materials prior to MultiServ's recovery operation was a reasonable time to remove the materials. This expiration argument is an additional red herring: GIP's reasonable period of time was not constrained by the government's perception, as a stranger to the contract, of when that period ended.

Finally the government suggests that Mr. Casey's confused communications with EPA amounted to abandonment of its property interest. Under Alabama law, "[a] determination whether certain personalty is abandoned stems from a consideration of the nature of the particular property, the intent to abandon, and some external act evidencing this intent." *Milford v. Tennessee River Pulp & Paper Co.*, 355 So. 2d 687, 698-90 (Ala. 1978). Moreover, "ordinarily there exists a presumption that one does not intend to abandon his property," but this presumption does not exist "where the article claimed to have been abandoned is generally considered valueless." *Id.* The government relies on *Milford* as an example of abandonment, but in that case "Milford admit[ted] he considered the coal valueless and that all purchasers had refused future shipments of it." *Id.* GIP, on the other hand, assigned value to the materials at the time of the bankruptcy auction, maintained a right to the materials as evidenced by its correspondence with Ableco, EPA, and Watkins, and attempted to recover those materials.

In sum, we are satisfied that GIP purchased the materials outright and that GIP was within its reasonable period of time to remove its materials when EPA used and sold materials from the Eastern Excluded Property.

Having found that GIP bought kish, 420,000 cubic yards of slag, and assorted scrap, and was within its reasonable period of time to remove those materials at the time of MultiServ's recovery operation, we now turn to "whether the government action at issue amounted to a compensable taking of that property interest." *American Pelagic Fishing Co., L.P. v. United States*, 379 F.3d 1363, 1372 (Fed. Cir. 2004). A compensable taking may occur when the government invades or physically appropriates a claimant's property. *Lucas v. S.C. Coastal Council*, 505 U.S. 1003, 1014–15 (1992). EPA does not dispute that it did not purchase any of the property at issue but nevertheless used and sold materials from the Eastern Excluded Property.

As for scrap, MultiServ's sales report indicates it sold materials expressly classified as scrap as well as assorted other metals such as plate, skulls, slabs, or ingots that were not byproducts of steel manufacturing but were metals Gulf States Steel had discarded in the piles. MultiServ's sales report does not list materials sold as "kish," but it does list several materials such as A scrap, B scrap, C scrap, and fines that overlap with the sizes and terms used for kish in trial testimony. Plainly EPA took GIP's scrap and kish.

Regarding slag, GIP purchased 420,000 cubic yards. EPA contractors used 92,500 cubic yards during the clean-up of at least one lagoon. MultiServ's sales records also reflect that it sold 9392 tons of slag; presumably some or all of this was purchased by plaintiff, although we do not know the amount. Although the government hints that, slag being fungible, we cannot be certain that *GIP's* slag was used, we reject that defense. Although Ms. Casey testified that 420,000 cubic yards was not all the slag on site, the government offers no evidence as to who owns any slag beyond the 420,000 cubic yards plaintiff purchased, nor of any permission EPA or any other party obtained to remove slag. We note as well that EPA sculpted the remaining piles to minimize pollutant runoff in such a way as, for all practical purposes, to embalm permanently all remaining materials, including slag.

Thus, GIP demonstrated that EPA used and sold slag, kish, and scrap. Plainly, by the time MultiServ had concluded its operation, EPA had taken those quantities of slag and metal that Mr. Gleason attempted to value. That does not answer the question of when the taking or takings occurred, however.

The date of asserted taking for kish, scrap, and slag is June 4, 2008. This is the date on which plaintiff asserts EPA precluded it from beginning its own recovery operation. We agree that June 4, 2008, can be used as the date of taking for scrap and kish, because Mr. Casey legitimately concluded at that time that GIP would be barred from beginning its own recycling operation. We note, however, that by June 4, 2008, the slag for which plaintiff seeks compensation had already been taken by EPA. Although plaintiff may have chosen to propose an earlier date, it is therefore also correct to say that the taking occurred no later than June 4, 2008. The government does not present a competing date of taking.

As discussed earlier, plaintiff's taking claim is limited to the value of the material the government took from the Eastern Excluded Property. If plaintiff had sought compensation for the value of materials in place, it would have had to present evidence of what a willing buyer would have paid for those materials immediately before access ended, even though the precise quantity was unknowable. It chose instead to quantify the volume taken by limiting its claim to materials actually removed, but then valued those materials as of June 4, 2008. This is a problem. The price of recycled material in June 2008 happens to coincide with a relatively brief but significant spike in the price of recycled steel. Even though GIP has limited the quantity taken by valuing only what MultiServ sold, the abnormal prices in June 2008 make that date an unfair one for valuation purposes. It would only be a fair date if plaintiff also had undertaken to prove what a willing buyer would have paid for the *opportunity* to recover *all* the kish and scrap, and 420,000 cubic yards of slag. But GIP did not undertake that exercise. Although June 2008 is a legitimate date for asserting that EPA took all of plaintiff's rights to what it had purchased, GIP also did not then follow that line of proof by showing what a willing buyer would have paid as of June 2008, a date for which the evidence of quantity would be problematic.[4] Alternatively, GIP could have claimed a series of rolling dates of taking for specific quantities, beginning with EPA's use of slag before 2008, but then plaintiff would have had to value the taking on those dates. Once again, something it did not do.

II. Just Compensation

When the United States takes private property for public use, it must pay just compensation, which requires the government to pay the "equivalent in money of the property taken," to place the owner in the same pecuniary position as if the property had not been taken. *United States v. Miller*, 317 U.S. 369, 370–71 (1943); *see also United States v. Reynolds*, 397 U.S. 14, 16 (1970). The Supreme Court has emphasized that just compensation cannot be reduced to a specific formula and that compensation must be based on all relevant facts. *See United States v. Cors*, 337 U.S. 325, 332 (1949); *see also Jack Daniel Distillery v. United States*, 379 F.2d 569, 574 (Ct. Cl. 1967). When the government physically appropriates plaintiff's property, however, the general rule in measuring compensation is the fair market value of the property on the date it is appropriated. *Kirby Forest Indus., Inc. v. United States*, 467 U.S. 1, 9–10 (1984) (citing *United States v. 564.54 Acres of Land*, 441 U.S. 506, 511–513 (1979)). "Under this standard, the owner is entitled to receive 'what a willing buyer would pay in cash to a willing seller' at the time of the taking." *Id.* at 511 (quoting *United States v. Miller*, 317 U.S. 369, 374 (1943)).

Plaintiff offered two measures of just compensation: lost profits and fair market value. Because lost profits is not the appropriate measure of just compensation, *United States v. General Motors Corp.*, 323 U.S. 373, 379 (1945), we set that theory aside and turn to plaintiff's fair market value

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[4] But not impossible, as MultiServ's site investigation would be available as some contemporaneous proof of quantity.

calculation.[5] As mentioned above, Mr. Gleason, determined the fair market value of the materials as of June 4, 2008.

Mr. Gleason's damage claim is calculated based only on materials recovered and sold by MultiServ, along with 92,500 cubic yards of slag which EPA used in the lagoons.[6] He explained that he was unaware of any reliable estimate on the volumes of recoverable materials as of the date of taking. "[Y]ou couldn't reasonably estimate what's in these piles or what's the yield or recovery in these piles." Tr. 1265 (Gleason). He therefore did not attempt to reconstruct what a willing buyer would have paid for materials in the piles using what was known or knowable at the time. Instead, he attempted to calculate the fair market value of the materials taken based on a projection using the earnings or income approach, which projects future earnings from the property and then discounts those future earnings to a specific point in time. Once again, however, he did not have actual figures to work with as of June 2008, other than the general projections by MultiServ. Instead, he used the actual figure for the volume of materials recovered between 2008 and 2013: 245,890 tons. As to price, he attempted to recreate what those materials would have been worth in June 2008. Against this calculation, he then applied his own calculation of avoided costs and discounted the results back to June 2008.

Because MultiServ's characterization of the various materials sold did not line up with the types of items that could be priced from publicly available records, Mr. Gleason calculated an assumed 2008 price by picking a comparison metal to the metal that MultiServ sold. To calculate a selling price for kish and scrap, he drew from a publication of the American Metal Market, which collects and publishes price lists for various types of metal on a monthly basis. The comparison metal he chose was "No. 1 heavy metal" or "heavy melt," which Mr. Gleason explained was a close equivalent to the "scrap" that MultiServ sold. He then projected selling prices for A scrap, B scrap, miscellaneous scrap, small pit scrap, skulls, plate scrap, oversized scrap, ingots, and manganese.

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[5] We note, however, that Mr. Gleason's lost profit calculation suffers from many of the same defects discussed below due to the unreliable calculation of avoided costs.

[6] There was testimony that plaintiff had to buy other slag from MultiServ for its own use. Unless the purchased amount is included in the 92,500 cubic yards, the specific quantity of purchased slag does not appear to surface in Mr. Gleason's calculations.

The projected selling price was the result of multiplying the average relationship of MultiServ's price to the quote price for heavy melt in Birmingham by the average quoted price for heavy melt in Cleveland in April, May, and June 2008. Mr. Gleason found that MultiServ sold A scrap at an average discount of approximately sixty-eight percent of the Birmingham quoted market price for June 2008 and then multiplied that by the average Cleveland heavy melt price from April to June 2008 to reach $486.67 per ton.

Mr. Gleason conceded that $486 per ton was historically a high value per ton and that the 2008 price spike was relatively short-lived. If the taking date were set twelve months later, in 2009 when the metal recovery operation began, for instance, the market price would have fallen much lower. Or if the taking had been, for example, in the 2000 to 2002 period, the price per ton would have been approximately $100.

That calculus accounts for the vast majority of materials. For the C fines, Mr. Gleason input GIP's agreement with Metawise Group to purchase C fines for $4.50 per ton after loading costs. For other materials, he estimated selling price as of June 2008 to be the actual average selling price reported by MultiServ. Mr. Gleason concluded that the projected revenue stream as of June 2008 would have been $19,873,418. We note, by way of comparison, that MultiServ actually only recovered $13.5 million during the nearly five years of its recovery efforts.

For the avoided costs, Mr. Gleason assumed that GIP and Watkins would have executed their Agreement to Process Kish. He thus applied the cost structure in that draft agreement: GIP would pay Watkins $70 per ton for materials recovered in excess of one inch in size (e.g., A scrap). GIP would not pay Watkins anything for materials less than one inch in size. He also assumed, based on Mr. Casey's explanation to him, that he and Mr. Stevens modified the draft agreement orally so that GIP would not pay Watkins for recovered materials one inch or larger that sold for less than $70 per ton. In other words, if material sold for $69 per ton, GIP owed Watkins nothing. He assumed that materials were loaded as they were processed. Furthermore, the assumption was made that GIP had no other additional cost than freight because GIP would use its existing infrastructure. Using those terms, he determined that the avoided cost based on payments to Watkins was $4.5 million. Mr. Gleason also included a freight adjustment to account for GIP's cost to ship the material. He calculated the price to ship to Birmingham or to Cleveland, since Cleveland was approximately $20 more per ton. Total avoided costs for payments to Watkins and freight were $4,928,603.

Using these inputs, Mr. Gleason concluded that the projected revenue for GIP was $19,873,418, avoided costs were $4,928,603, and the total net $14,944,815 recovered over an approximately 5-year period, from June 2008 to February 2013. To establish the present value of that revenue as of June 4, 2008, Mr. Gleason applied a discounted cash flow analysis. He used a weighted average cost of capital approach with a twenty-one percent discount rate. Ultimately, Mr. Gleason found that the fair market value of the metal taken as of the date of taking, and net of all costs, was either $9,780,560, using a Birmingham freight adjustment, or $10,446,005, using a Cleveland freight adjustment.

Mr. Gleason separately valued the slag used by EPA. Mr. Gleason's understanding was that EPA had taken 92,500 cubic yards of slag as part of its environmental remediation efforts. He applied a conversion from cubic yards to tons, totaling 137,363 tons. He then applied an estimated price term between five and six dollars per ton, using the sales price applied when MultiServ sold slag to GIP, to determine that EPA had taken $755,494 of slag.

The government challenges several aspects of plaintiff's fair market value calculation. The government contends that the relevant question is "what a would-be miner would have paid Gadsden for the purported right to dig in the waste piles." Def.'s Post-Trial Br. at 64, ECF No. 193 (Jan. 5, 2018). In other words, the government argues that plaintiff would only be owed the equivalent of what a buyer would have paid GIP to explore the piles for retrievable materials in 2008.

On Mr. Gleason's calculations, defendant argues that his analysis is not based on information known at the time of the taking because it relies on quantity figures drawn from what MultiServ's eventually recovered. Regarding the price term, the government argues that a buyer of the right to process the piles would not have assumed that the spike in prices contemporaneous with the time of taking would continue indefinitely. Mr. Gleason and Mr. Clayman readily acknowledged that scrap iron prices were high in mid-2008 and that they could have been expected to, and in fact did, fall throughout the course of MultiServ's recovery project.

The government also challenges GIP's reliance on the unexecuted Watkins agreement as a basis on which to calculate avoided costs. It was a draft rather than a contract, and Watkins had not completed recovery work on these piles in the past. The draft cost structure only guaranteed payment per ton for material sold in excess of one inch in size and, if the purported oral modification were taken into account, sold for at least $70 per ton. The government notes that plaintiff lumped B scrap in with small, less than $70 per ton materials, altering the amount GIP hypothetically would have paid Watkins by up to $3 million. Even assuming that Watkins would be able to sustain a recovery project under such terms, the agreement, if it had ever been executed, also contained a walk-away provision that would allow Watkins to terminate the contract in its discretion, which presumably it would do if it became unprofitable.

We sympathize with Mr. Gleason in putting together a damage calculation. It would have been difficult to measure with any precision what was actually recoverable in the piles as of June 2008, either at that time or subsequently. What is not disputable, however, is that every single witness involved in processing the piles before, during, and after the bankruptcy sale agreed that the piles concealed recoverable materials, including EPA, which was able to persuade MultiServ to undertake an exploratory operation, which produced favorable enough results for the agency to enter into a sales contract. At the time, the parties to that arrangement touted the possibility of $50 million in recoverable metals. We are thus persuaded that a buyer would have paid something for the opportunity to retrieve the materials from the piles. Determining what that value would have been, however, is not an exercise Mr. Gleason undertook.

We agree with the government that there are a number of problems with Mr. Gleason's approach. The government, we believe, is correct that Gleason's figures are seriously distorted in at least two ways. First, his construction of an artificial sales price as of June 2008 for materials sold later was inappropriate. Although these figures may accurately reflect values as of the date sold, they do not reflect the reality that a buyer would know that it would not recover that value instantly; in fact, the recovery operation itself did not result in sales until 2009. And a buyer also would be presumed to know that the price in June 2008 was abnormally high. The evidence from Mr. Clayman and Mr. Gleason was that it was known in the industry that prices would not remain inflated in the long term, or at least not for a years-long recovery operation. A purchaser could not rely on receiving those high prices over the years required to go through the piles. A buyer would discount value to account for the virtual certainty that prices would decline.

The second defect in Mr. Gleason's calculation concerns how he calculated the costs to retrieve the materials. He based his cost figures on the assumption that the agreement between plaintiff and Watkins would have been performed, i.e., that plaintiff would only have to pay $70 per ton for qualifying materials and that qualifying materials did not include materials sold for less than $70 per ton. All of the risk in this hypothetical arrangement would have been borne by Watkins, which, in actuality, maintained the right to walk away from the recovery operation by the terms of the draft agreement. Nevertheless, building size and price limitations into GIP's payment obligation results in GIP paying Watkins, at most, for 64,285 tons of processed material, whereas MultiServ processed 245,890 tons. Mr. Gleason, in effect, is assuming that GIP is getting a substantial amount of Watkin's labor at no cost. Without crediting the oral addendum, GIP would have paid Watkins an additional $2 to $3 million. Applying the $70 per ton cost to both A scrap and B scrap uniformly results in $5.6 million avoided costs for those two materials alone. When the $70 per ton cost is applied to all materials other than C scrap or fines, the avoided costs before considering freight are at least $7 million.

We also find that it is not likely that the balance of the draft agreement would have been performed as written. The draft agreement required Watkins to process 500 tons per month to maintain exclusivity. MultiServ was able to process nearly that amount per hour. Thus Mr. Gleason's reliance on assumptions drawn from MultiServ's records are highly questionable. Even if we assumed Watkins could maintain such an operation, the government correctly points out that GIP would have experienced other costs. GIP retained the ownership of the saleable materials, meaning it would have had to market and sell those materials in addition to the possibility of paying for loading the materials as well as supervising the Watkins operation. GIP may have worked within its existing infrastructure to sell the materials, but like any other business, there would be some costs associated with marketing and delivering the materials.

The government's expert on damages, Steven Dowd, did not place an estimate on those costs, but he aptly observed that "to assume that there's no cost to that of any type, zero, I think is unreasonable." Tr. 1677. EPA had two contractors handling the materials pre- and post-processing that, at its height, involved two processing plants and nearly two dozen employees just to assist in MultiServ's processing. This is not including what the remediation contractor, CMC, was doing to facilitate the MultiServ recovery operation. Despite CMC's help, MultiServ terminated the recovery operation because it was no longer profitable. *See* Pl.'s Ex. 195.

Ultimately, plaintiff asks the court to accept that a hypothetical buyer would have projected that the piles held at least 245,890 tons of material and that the buyer would incur substantially less costs than that actually incurred by MultiServ and CMC. We find these assumptions unsupportable. Although a trial judge "may award damages, even if he does not fully credit that party's methodology," *Precision Pine & Timber, Inc. v. United States*, 596 F.3d 817, 833 (Fed. Cir. 2010), we are not given sufficient reliable proof of what a willing buyer would have paid for the scrap and kish.

We have a different view of the slag EPA actually used. GIP purchased 420,000 cubic yards of slag. Mr. Casey estimated at trial that GIP had used 15,000 cubic yards, prior to EPA's use of slag for environmental clean-up.[7] Thus, GIP had not used all the slag it had purchased before EPA took 92,500 cubic yards, or 137,363 tons, for environmental clean-up. Mr. Gleason valued the 92,500 cubic yards of slag at $755,494, using the five to six dollars per ton rate at which MultiServ actually sold slag to GIP. In the case of the slag, we know both what GIP owned and what EPA took, and plaintiff presented a credible valuation of the taking. Thus, we award plaintiff $755,494 for the taking of its slag.

III. Prejudgment Interest

In addition to the value of the property taken, just compensation includes interest from the date of the taking to the date of payment in order to place plaintiff in "as good a position pecuniarily as he would have occupied if the payment had coincided with the appropriation." *Kirby Forest Indus., Inc.,* 467 U.S. at 10–11. GIP did not present a calculation of interest at trial, and the government did not argue for a particular rate of interest. This court, however, consistently has employed the rate set forth in the Declaration of Takings Act ("DTA"), 40 U.S.C. § 3116 (2012), as the proper interest rate in a takings claim. *See, e.g.*, *Waverley View Investors, LLC v. United States*, No. 15-371L, 2018 WL 1193439, *3–*4 (Mar. 8, 2018); *Textainer Equip. Mgmt. Ltd. v. United States*, 99 Fed. Cl. 211, 223 (2011); *Vaizburd v. United States*, 67 Fed. Cl. 499, 504 (2005). Thus, we find that plaintiff is entitled to interest at the DTA rate from the date of the taking, June 4, 2008, to the date of payment.

CONCLUSION

In sum, we hold that EPA's actions constituted a taking compensable under the Fifth Amendment Takings Clause and hold that GIP is entitled to just compensation in the amount of $755,494, together with interest calculated

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[7] We recognize that this is inconsistent with some of his email correspondence with EPA in 2008, in which he speculates that GIP may have used up all its allotment. We find Mr. Casey to be a credible witness, however, and rely on his trial testimony. GIP did not do any recovery operations on the Eastern Excluded Property and, in any event, kept no records to support the email estimate.

from June 4, 2008, to the date of payment in accordance with 40 U.S.C. § 3116. The Clerk is directed to enter judgment for plaintiff.

s/Eric G. Bruggink
Eric G. Bruggink
Senior Judge